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EDITED BY

F. E. OLIVER, M.D., AND CALVIN ELLIS, M.D.

VOLUME LXIII.

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No. 1.

THE DISEASES OF THE EAR.*—A REVIEW.

[Communicated for the Boston Medical and Surgical Journal.]

WE give the title-page of the English edition of this work in connection with the present article, for the reason that we acquired our knowledge of its contents from the London copy, received very shortly after its publication; and the American edition followed so immediately after the appearance in this country of the foreign one, that there was no time for "additions" and "emendations," (?) a process of treatment to which productions from the other side of the water are so often ruthlessly subjected. We conclude—knowing the honorable character of the publishing house which has issued it in this country—that there must have been some understanding between its managers and the author and his publishers; especially since the work was issued here so shortly after its appearance abroad, that it would seem this end must have been effected by the use of proof-sheets in advance. The only addition which Messrs. Blanchard & Lea have made to the title-page is the statement—"With One Hundred Engravings on Wood," with their vignette, and the name of the staid and upright Quaker City.

It was our good fortune, last autumn, to meet the accomplished author of the work we are now about to notice, and to enjoy several opportunities of witnessing his aural practice. In addition, we had the great advantage of inspecting his pathological specimens under his own explanations—an opportunity long to be remembered and valued. At this time, the proof-sheets of the present volume were passing through his hands, and we had the pleasure of cursorily examining them. The augury we then mentally made in regard to Mr. Toynbee's book, has been amply fulfilled. It takes precisely

* The Diseases of the Ear: Their Nature, Diagnosis and Treatment. By JOSEPH TOYNBEE, F.R.S., Fellow of the Royal College of Surgeons of England; Aural Surgeon to, and Lecturer on Aural Surgery at, St. Mary's Hospital; Aural Surgeon to the Asylum for Idiots; Aural Surgeon to the Asylum for the Deaf and Dumb; and Consulting Surgeon to St. George's and St. James's General Dispensary, London. London: John Churchill, New Burlington Street. 1860. Pp. 422.

the ground which an aural surgeon of very large experience should occupy in writing of the Diseases of the Ear—and that is the *purely pathological* ground. We mean by this, that all the volume teaches is eminently practical, and based upon thorough pathological observation; not merely the inspection of diseased ears during life and the treatment of their various conditions, as has often been done, to a great extent, empirically—but going to the bottom of the matter patiently, thoroughly, and with long-exercised and eminent industry; making *very numerous dissections*, and reasoning from pathological appearances more completely than has hitherto been done by any aural surgeon.

This process is just what has long been needed; and the results, embodied in the present elegant volume, will live as a worthy monument of the author's devotion to his chosen branch of medical and surgical science, and no less as a safe and inestimable guide to those interested in the same pursuit.

It is not necessary for us to occupy many lines in setting forth the great necessity which has long existed and been most deeply felt, for more extended investigation, study and knowledge in the department of aural surgery. The fact has been long acknowledged; yet few have been found, comparatively speaking, willing to bestow sufficient time and attention for the proper cultivation and understanding of this truly interesting and confessedly important department of our art. The consequence of this negligence has been only too evident. The most quackish performances have been held upon that wonderful and important organ the human ear; and the routine, or experimental, treatment—just as it might suit the practitioner's fancy—has been often as cruel and destructive as it was absurd and ignorant. We fear that many a *drum* has been cracked by charlatanic beating, and that many a *labyrinth* has suffered, for want of a clue whereby the patient might escape!

The few names distinguished as having really advanced either the science or the art of aural medicine and surgery, are familiar as “household words,” and, in great measure, they are so from the fact of their paucity. Not to rehearse the merits of Kramer, Itard, Deleau, Pilcher and some others, it is now a fact that the practice of aural surgery in England rests mainly in the hands of some three practitioners in London; while, to our personal knowledge, the number of applicants for relief from various troubles of the auditory apparatus, in London alone, is almost incredibly large; nor are these ailments by any means found in the largest proportion amongst the very poor. If to the already celebrated names of Messrs. Toynbee, Yearsley and Harvey, of London, we add the equally respected name of Mr. Wilde, of Dublin, we have the actual professed corps of aural surgeons for Great Britain; and it is not, we believe, pretended that surgeons in general practice do much as aurists. Yet there seems no special

reason why this branch might not more frequently be joined with the usual duties of the general surgical practitioner. Although it certainly requires tact, carefulness, and no inconsiderable amount of study and preparation—contrary to what has hitherto been very generally believed—it would be for the advantage of every large community if at least one or two reliable men should fit themselves for managing the frequently obstinate, painful and disastrous affections of the ear.

If there are but few in Great Britain who command our attention as aurists, its neighbor-land—France—has a still less representation. Not to go out of Paris—virtually the medical as well as the political France—we were unable, six or seven months since, to find any *clinique* upon the diseases of the ear, or any one, except the justly celebrated M. Menière, who, in a special manner, attended to them. To this gentleman we hope to allude on some future occasion, as also to the aurists mentioned in connection with our author.

Premising that the proper understanding and treatment of the diseases of the ear is alike important to the profession and to the public—although on different grounds; and in the hope that this branch of practice, whether followed—as it is in some instances, here—in connection with general practice, or as a specialty—may be speedily and effectually taken out of the hands of pretenders—let us proceed to examine, comprehensively, what Mr. Toynbee offers us in furtherance of this desirable end.

We have said that his work is peculiarly a practical one, and, as such, especially suited to the wants of the aural or general surgeon, actively engaged in his duties. The style, moreover, is clear, not overloaded with superfluous diction, not warped by partial views; but setting forth in an interesting manner the subjects examined. Another excellent feature is the very considerable number of well narrated cases, all excellently adapted to the illustration of the successive topics of the volume; while not the least valuable means employed for the same purpose, is the series of admirably executed engravings, nearly all of which are completely successful in explaining to the eye, what they offer upon the ear. In one or two instances, however, we have thought this end not perfectly attained; but, as a general thing, they are alike most creditable to the engraver and to the judgment of the author.

The Introduction opens with sentiments and declarations very similar to those with which we have, spontaneously, begun this notice. And here we may be permitted to offer one or two short extracts, which will present our author's views and our own at the same time. Referring to the neglect which aural surgery has experienced at the hands of the profession, Mr. Toynbee remarks:—
“If we carefully survey the history of the rise and progress of aural as a distinct branch of scientific surgery, one main cause of the disrepute into which it had fallen may be traced to the neglect

of the pathology of the organ of hearing—a neglect that doubtless led also to the ignorance which has prevailed as to the structure and function of some of the most important of its parts.

“It is a question, however, whether the inherent difficulties of aural surgery are of a nature to prevent its being as thoroughly understood as the other branches of surgery. This question has been answered in the affirmative by some, on the ground of the deep and hidden situation of the larger part of the organ and the extreme intricacy of its structure. But surely the organ of hearing is not so much concealed from view as several others (the heart, for instance), of whose diseases we have a very clear knowledge; nor is its structure more complicated than that of the eye.” The author then goes on to state that he considers the diseases of the ear not to be more difficult of diagnosis, nor, “on the whole, less amenable to treatment than those of the eye, the joints, or almost any other organ that can be named.” This is encouraging language from an aural surgeon of such large and varied experience as our author.

The ear and its diseases are examined by Mr. Toynbee from without inwards—the natural and most obvious course. To the affections of the *External Meatus*, 113 pages are devoted; the subjects considered may be announced in the author’s own words: “The two classes of disease of the external ear for which the assistance of the surgeon is sought, are—first, malformations, and, secondly, various kinds of inflammation: to these may be added cases of cysts and tumors, which are, however, comparatively rare.”

Referring to “Malformations,” “Rudimentary Ears,” &c., the author mentions the instance, related by Mr. Wilde (from Cassebohm), of a child which had four ears; “two placed naturally, and two lower down in the neck: in this instance there were two petrous portions to each temporal bone.”

The most thorough consideration is given to the affections of the external meatus; and, in Chapter III., we have, in addition to a comprehensive anatomical description of the osseous, and of the membranous, meatus, a satisfactory detail of the means and manner of exploring the external ear, together with apposite and well-executed illustrations, both of the necessary instruments, and of the method of using them. In Chapter IV., the subject of Foreign Bodies in the meatus and their removal therefrom, is duly considered. This is an important topic; and since every surgeon is liable, often, to be called upon in such emergencies, it behooves all to understand, not only the anatomical relations of the parts involved, but also the methods remedial of such difficulties as frequently occur in this class of aural affections. Mr. Toynbee is careful to warn the aural surgeon against proceeding, rashly, to make efforts at extracting a foreign body *supposed* to be in the external meatus, before ascertaining by ocular inspection that it is really there. Much mischief may be done by blind poking; and useless syringing. “When a patient is suspected of having a for-

eign body in the ear, the first step of the surgeon is to make a careful inspection of the tube, in sunlight or with the speculum and lamp, with the view of ascertaining whether there really is anything present. In a great number of cases, having explored the whole of the meatus, and seen the *membrana tympani*, he will be able to assure the patient or the friends that no foreign substance is there. For want of this pre-inspection, lives have been destroyed in attempting to extract from the ear imaginary bodies which had never lodged there." (p. 37.) This caution should prove sufficient to all medical men; especially when it is known, as our author testifies, that foreign bodies may remain for a long time in the meatus externus with entire impunity. And if it is necessary to put practitioners upon their guard in this matter, how much more is it incumbent upon us to lose no opportunity of dissuading patients and their friends, from aggravating the difficulty, in these cases, by persistent and often violent attempts at dislodging foreign bodies, which they almost invariably succeed in impacting deeply and out of sight in the passage, perhaps dangerously compressing the *membrana tympani*. A woman lately came to us in great distress of mind, and out of breath with running for nearly half a mile, imploring that no time might be lost by us in visiting her daughter—a grown-up girl, who should have known better—who had pushed a pin into the meatus externus and lost her hold of it. We directed the woman to go back as fast as she could, in order to prevent any efforts being made by the patient or her friends at extracting the pin, and assured her *that* was the most important point. "Ah," said she, "then it's as bad as it can be, for they've been *jagging* and poking at it this half hour"—and off she ran. The pin, which had been in plain sight at first, was completely out of view, and was extracted, not without difficulty—the point being seized by forceps, through a speculum.

Mr. Toynbee very judiciously advises that all foreign bodies, whose nature will admit of it, be *washed* out by a stream of warm water from the ear-syringe; thus avoiding all unnecessary use of instruments for direct extraction.

Chapter V. contains very important information upon the diseases of the Dermis; and in the next Chapter the author goes thoroughly into the subject of Polypi. We must unwillingly pass over these subjects, with the single remark that both Chapters are full of instructive matter and have well repaid us for a careful perusal. Such will, we are confident, be the experience of all who shall read them as thoroughly as they deserve.

The subject of Tumors in the External Meatus is next examined. Two classes of tumors, as distinct from polypi, are mentioned—Osseous and Molluscous tumors. The former Mr. Toynbee considers—contrary to our previous impression—to be "of no unfrequent occurrence." These tumors generally spring from "about the middle third of the passage." There are several excellent il-

illustrations, both of the osseous and of the molluscos tumor, accompanying this portion of the text; and the cases related are exceedingly valuable. Indeed, the narration of illustrative cases throughout the work is one of its peculiar merits; and gives to it, as we have already intimated, an eminently practical character.

Mr. Toynbee first met with the molluscos tumor "when making dissections of the ear." These tumors arise from "the dermis of the meatus," and grow to a very large size, not only filling the passage, but pressing upon the bone so as sometimes to cause absorption thereof. Mr. T. has "met with cases in which the tumor has extended into the cerebral cavity. These cases are liable to be overlooked, and classed with those in which there is a simple accumulation of epidermis in the meatus." (p. 119.) The importance of recognizing and properly treating these cases is sufficiently evident. Removal of the mass and abundant ablution by the syringe, are our author's directions.

The remarks on the various diseased conditions of the External Meatus are fitly concluded by a tabular arrangement, which presents the "morbid conditions disclosed by the dissection of 1013 diseased ears." Of these, the large number of 71 were referred to ceruminous collection; while 14 cases presented bony growths, and the meatus was "much contracted."

The next large division of our author's subject is the Membrana Tympani—its structure and its pathological conditions. Mr. Toynbee has, for a long time, been making the most elaborate dissections and examinations of all the parts which enter into the structure of the ear, and perhaps in none has he entered more minutely into the anatomy of tissues than in his investigations upon the structure of the membrana tympani. For this he has often been ridiculed, and mainly on the ground that such minuteness avails nothing *practically*. In this verdict we can hardly join, since we believe that too much cannot be known relative to *structure*—both healthy and morbid, when disease is to be classified and treated.

Mr. Toynbee makes the following divisions of the tympanal membrane, and examines them in detail:—"1, The epidermis; 2, The dermis; 3, The fibrous layer, composed of—*a*, The lamina of radiating fibres. *b*, The lamina of circular fibres. 4. The mucous membrane." The whole portion which treats of the membrana tympani is interesting and highly instructive. It is evidently written *con amore*, and with the most faithful attention; while the cases which set forth the lesions described and the treatment adopted, are plain and practical. It is utterly impossible for us to follow our author through the minutiae of his descriptions of the diseased states of the tympanal membrane, and his remedial suggestions; did space permit, we should like to extract many portions from this department of his subject. But we are sure that the extreme importance of the tissues involved—and whose lesions so signally impair the integrity of the little drum-mem-

brane in our heads, upon which such a constant tattoo is being beaten—will induce every practitioner who is called upon to treat aural affections, to investigate the whole subject, carefully, under our author's excellent guidance. And in doing this, let us forewarn them that there is *study* to be done; although the narration is most deeply interesting, and, in portions, truly fascinating, it is no mere romance-reading. Towards the last of his remarks upon the tympanal membrane, Mr. Toynbee describes the artificial membrane devised by himself, and alludes to the use of cotton upon Mr. Yearsley. We can testify to excellent results from both these methods; but, in common, we believe, with many others, have found failure to be not unusual. With us, the cotton has been fully as satisfactory as the rubber-membrane. The devices which so frequently supply, with striking success, the lost membrane, are truly ingenious, and do great credit to their authors.

In Chapter XI., the Eustachian Tube is thoroughly investigated, as to its morbid conditions, and the remedial measures to be adopted. We remark a highly judicious and careful tone in regard to the exploratory measures to be put in force; and think that every one will allow, on perusing this chapter, that Mr Toynbee has adopted the happy medium; and, above all, that he is right in discountenancing frequent catheterism of the tube, and its hasty and often ungentle exploration by sounds. In this chapter, we particularly notice the attention directed by the author to the *general means* to be employed in certain affections of the Eustachian tube, and especially in those where its faucial orifice is obstructed by thickened mucous membrane. It is to be feared that these important *generalia* are too often neglected, and over-attention paid to topical measures—the importance of which latter is not likely to be overlooked by the judicious practitioner.

The operation for puncturing the membrana tympani, in certain affections of the Eustachian tube, is referred to, and its infrequent necessity noted. In *permanent* occlusion of the faucial orifice of the tube, or in similar adhesion of its walls, it is demanded; also in stricture of the osseous portions of the tube, and in those following fibrinous effusion, “and where the thickened mucous membrane of the tympanic orifice will not yield to other treatment.” (p. 217.)

One of the most important portions of Mr. Toynbee's researches is that comprised in Chapters XII. and XIII., on the structure and affections of the Cavity of the Tympanum. Warned by our already extended observations, we cannot expect to be allowed space to refer, even, to the many points worthy of the most attentive consideration as discussed within the above named limits. We can barely indicate one or two topics which seem to us to have peculiar interest; at the same time premising that the whole of this subject is well set forth and deserves the closest attention.

With regard to *rigidity* of certain of the tissues here considered,

Mr. Toynbee encourages us to hope for better results than we had deemed possible; and, indeed, in very many affections of the aural apparatus, he takes a more hopeful view than we have, hitherto, dared to adopt. We, of course, set this down, with—as we trust—becoming modesty, to our far less experience and skill—hoping, at some future day, to emerge from a more clouded, into his brighter atmosphere of truly remarkable success.

Speaking of the *prognosis*, in certain cases of rigidity, ankylosis, &c., about the ossicles and ligaments, Mr. T. says:—"it may be laid down, as a general rule, that so long as the affection depends upon rigidity of the ligaments, or upon a slight expansion of the base of the stapes (and the surgeon can judge of the existence of these conditions during life by the symptoms being but little advanced), then there is every prospect that considerable amelioration may be effected, and the patient, in fact, be enabled to hear without any inconvenience, for experience has taught me that a rigid ligament may be relaxed, and an expanded bone be reduced in size." (p. 283.) We are glad to hear the latter statements, but is it uniformly easy to "judge of the existence of these conditions"?

The discussion of the question, "*Can sonorous undulations reach the labyrinth from the external meatus without the agency of the ossicles?*"—is an interesting one; and the "Experiments" introduced by Mr. T. are both scientific and satisfactory. The author's conclusions are: "*First*—That the commonly received opinion in favor of the sonorous undulations passing to the labyrinth through the chain of ossicles in the human ear, is correct. *Second*—That the stapes, when disconnected from the incus, can conduct sonorous undulations from the tympanic cavity to the vestibule. *Third*—So far as our present experience extends, it appears that in the human ear, sound always travels to the labyrinth through two media, viz., the air in the tympanic cavity to the cochlea, and one or more of the ossicles to the vestibule." (p. 298.) The author thus considers that a "simple disconnexion of the incus from the stapes, is not productive of any large amount of dulness of hearing."

Succeeding the above topic, the Mastoid Cells receive a due share of attention; and here the perseverance of our author in making thorough pathological investigations of the parts, *post-mortem*, and the valuable results obtained, are exhibited in a marked manner. The extreme importance of a thorough knowledge of what not infrequently occurs in this portion of the auditory apparatus, may be recognized in the statement of the "effects of chronic disease" in the cells. "1st. Suppuration in the lateral sinus, with or without secondary purulent deposits. 2d. Inflammation of the dura mater and arachnoid, and the formation of pus on the surface of the cerebellum. 3d. Abscess in the cerebellum." (p. 312.)

That very important—and, unless we mistake, too frequently

assigned—species of deafness, “Nervous Deafness,” is treated of elaborately in Chapters XV. and XVI. This subject, the investigation of which is abundantly illustrated with cases, is divided, *first*, into those instances arising from shock to the *special* nerve-apparatus—as from concussion, cold, and “morbid poisons” (are not all poisons “morbid” ?); and, *secondly*, into those which are due to disease of the brain accompanying local injury of the ear.

While the author’s positions, in this portion of his work, are, as we have said, fully illustrated by interesting cases, we are struck with the excellence and fitness of some general remarks, which we venture to present as worthy of universal attention.

“Perhaps the most common cause of nervous deafness from physical debility is the want of proper care in the management of young persons, and particularly girls, when they are growing fast. In hospital practice, young nursemaids who carry heavy children, and whose night’s rest is often disturbed, and youths just entering laborious situations, are found to suffer. Any cause, in fact, which reduces the nervous energy of the body to a state too low for the due regulation of the functions of the various organs of the frame, may be followed by a manifest depression of the nervous power of the ears, which shows itself not merely in diminished power of hearing, but often by singing and other sensations in the ear, and sometimes by severe pain like *tic douloureux*.” The treatment recommended in cases where *debility* is the evident cause of nervous deafness, is what we should suppose it would be, viz., the best hygienic conditions possible to be secured, sufficient sleep, good food and a certain amount of stimuli, with tonics. Mr. Toynbee also recommends local stimulants to “be applied over and around the ear.”

The work terminates with a short account of Malignant Disease of the Ear; with a chapter on the Deaf and Dumb, showing much research, and containing a great deal of very valuable information and interesting detail; and a page upon Ear Trumpets and their Use. An Appendix furnishes us with a complete list of the author’s writings upon topics connected with the Ear and its Diseases.

In reiterating our favorable opinion of Mr. Toynbee’s elaborate work, and most warmly recommending it to students and practitioners, it also behooves us to notice again, with the highest commendation, the elegant style in which both the English and American editions are put forth. Our surprise, however, has been excited by noticing many misprints, which, of course, are to be attributed to hasty or careless proof-reading; and we trust that if we indicate these, our motive will not be misunderstood, nor the act deemed supererogatory. It certainly is not a matter of indifference that a medical volume should be correctly printed; and we have remarked—of late, particularly—a negligence in this respect, in elegant English books, which cannot escape general notice. Messrs. Churchill and Renshaw must look to their laurels!

We need do no more than instance two of their justly celebrated and really beautiful "Manuals," lately published, to justify our remarks: viz., "The Practice of Medicine," by Dr. Barlow, which has several inexcusable typographical errors; and Mr. Druitt's last edition, in which our casual references, merely, have brought to notice several similar instances of carelessness. In Mr. Druitt's book, for instance, we have noticed "*mycloid*" for *myeloid*, p. 123 (English copy); "tomes" for comes, last line of page 128; "idiode" for iodide, 8th line of page 176; "arenic" for arsenic, 12th line of page 190; "Tic-Doloreux" for Tic-Douloureux, page 330; "wedicine" for medicine, page 434, 4th line; "Pirigoff" for Pirigoff, twice, pages 736, 737.

We think the typographical errors in Mr. Toynbee's handsome volume are, however, even more striking. Thus, to begin, we have an inverted V instead of an A in the word External (Contents, caption of Chapter II.); "mucous" for mucus, page 58, and page 159; "three week" for three weeks (p. 68, 4th line); "great restless" for great restlessness (p. 74, line 1st); "diaphonous" for diaphanous (p. 131, middle); "membrane" for membranes (p. 234, 10th line from foot); an error in grammar at page 244, 5th line, "condition * * are" for condition is; "polyhoid" for polypoid (p. 252, middle); "Histiology" for Histology (foot-note, p. 295); omission of the article *the*. p. 199, 10th line, between "both" and "long"; "membranus" for membranous (p. 339, 9th line); "*Fatal Deafness*" for "*Total Deafness*" (p. 350, 8th line); "sub-maxillary" for sub-maxillary (p. 365, 5th line from foot); "tic-doloureux" for tic-douloureux, 14th line from foot of page 368; "spiculæ" for spicula (page 388, middle). The word "ivoid" (p. 402, 3d line from foot) conveys no idea to our mind—we suppose *ivory* may be meant, as it is used in connection with "whiteness." The word "diagnosed," instead of diagnosticated, is used constantly. In this error very many writers indulge, who would never think of writing prognosis for prognosticate.

The above *errata* were noted in reading the book in course—not sought for—we think we deserve a commission for pointing them out! The American edition has the credit of having some of the errors corrected, but it doggedly repeats very many. No one will deny that the volume would be benefited by our process of lustration.

The work is one which not only commands the respect and admiration of the general professional reader, but it is indispensable to such practitioners as pay any attention whatever to the diseases of which it treats, and no professed aurist, of course, can consider his library complete without it.

W. W. M.

Boston, July 23d, 1860.

TRAUMATIC INJURY OF BOTH EYES—OPERATION FOR RESTORATION OF VISION.

BY HENRY W. WILLIAMS, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

MR. —, of Pawtucket, formerly a workman in a machine shop, lost his right eye some years since, in consequence of an injury from a piece of steel. This eye was nearly emptied of its contents, and the cornea became opaque; affording no hope of recovery of sight.

More recently, his left eye was struck by a nail, which cut through the cornea nearly at its centre, and wounded the iris and the crystalline lens.

When I saw him the condition of the eye was as follows: adhesion of the iris to the cornea, and of the capsule of the lens to the iris; obliteration of the pupil by these adhesions and by an opaque deposit; and loss of vision. He had perception of light only. As it seemed possible to remove the obstructions from the small portion of the natural pupil not adherent to the cornea, I determined to make the attempt, as vision would be better, if this could be effected, than through an artificial opening in the iris.

Ether was administered to the patient, to secure immobility of the eye, and the operation was performed on the 22d of May last, Drs. Coolidge, Slade and H. K. Oliver giving me their skilful assistance. A wound was made at the lower part of the cornea, and through this the fine canula forceps was introduced, and an attempt made to extract the seemingly firm tissue which veiled the limited area of the pupil. Instead, however, of removing the whole of a membranous mass, the forceps retained but a very small portion of capsule, and the remainder of the opacity was evidently composed of softened lenticular substance, which could not be grasped by the instrument.

In this condition of things I adopted another mode of operation, and introduced a very fine needle through the sclerotica, to break up the crystalline as completely as possible and lacerate the posterior capsule.

He recovered from the operation without accident, and at the end of a few days was allowed to return home to await the absorption of the fragments.

On the 16th instant the patient returned to *see* me, unaccompanied by any guide, and perfectly able to find his way from Pawtucket without assistance. I found a perfectly clear opening occupying what was formerly the inner side of the normal pupil, and, though its size was limited, it was sufficient to enable him to see large objects without difficulty, and even to tell the time by my watch, without a cataract glass. With a glass of four and a half inches, however, he saw much more clearly, and with a glass of two inches' radius he could read the finest print.

As I had encouraged the patient only to hope for sufficient vision to allow him to guide himself, on account of the very unpromising and complicated condition of the eye, we could not but feel the highest gratification at this very successful result, which restores him to usefulness.

33 *Essex Street*, July 20th, 1860.

DURATION OF GESTATION IN A MEDICO-LEGAL POINT OF VIEW.

BY B. L. DODD, M.D., OF NEWARK, N. J.

THERE is very little certainty regarding the precise duration of gestation in the human female. Fortunately, however, cases are quite rare, in which the legitimacy of a child is to be determined by the period of gestation. Yet, when such cases occur, they must, from the very nature of the case, cause great embarrassment to the medical witness. In view of this, it is very important that we should possess accurate data of all the facts derived from analogy or otherwise, bearing upon the subject.

To fix the "legal limit" of gestation is no easy task. In France 300 days are allowed. Dr. Simpson, of Edinburgh, uses the following language: "I believe our best criterion for fixing the 'legal limit,' or ultimate possible period of gestation in the human female, will be derived from careful and repeated observations upon the ultimate period of gestation in the cow; allowing always for the difference of four or five days of excess in the normal period of pregnancy in the cow, as compared with the human mother."

Acting upon this suggestion, I have collected the subjoined carefully recorded observations of the periods of gestation in 66 cases, of 13 cows, extending over a period of thirteen years.

Time of Gestation of Mr. J. R. Burnet's Cows—1844 to 1859.

- | | |
|-------------------------|---|
| 1. Dolly— | 4. Lilly— |
| 1846, 284 days, heifer. | 1844, 287 days, heifer. |
| 1847, 288 " bull. | 1845, 285 " no sex given. |
| 1848, 282 " heifer. | 1846, 284 " heifer. |
| 1849, 296 " bull. | 1847, 288 " bull. |
| Sold. | 1848, 293 " heifer. |
| 2. Molly— | 1849, 295 " bull. |
| 1844, 285 days. | 1850, 290 " " |
| 1845, 285 " bull. | 1851, 288 " " |
| 1846, 291 " " | 1852, 292 " heifer. |
| 1847, 291 " heifer. | Last calf at 13 years old. |
| Sold. | 5. Jenny, large brindle cow— |
| 3. Suky— | 1st calf at 3 yrs., 1847, 281 days, bull. |
| 1844, 288 days, heifer. | 2d " 4 " 1848, 281 " " |
| 1845, 276 " " | 3d " 5 " 1849, 286 " " |
| 1846, 285 " bull. | 4th " 6 " 1850, 283 " heifer. |
| 1847, 280 " " | 5th " 7 " 1851, 287 " bull. |
| Sold. | 6th " 8 " 1852, 282 " heifer. |

7th calf at 9 yrs., 1853, 284 days, heifer.
 8th " 10 " 1854, 284 " "
 9th " 11 " 1855, 288 " bull.
 10th " 12 " 1856, 289 " "
 11th " 13 " 1857, 282 " "

Butchered. This cow is daughter of No. 4, Lilly.

6. Sally, white cow—

1st calf at 3 yrs., 1848, 284 days, bull.
 2d " 4 " 1849, 290 " "
 3d " 5 " 1850, 292 " heifer.
 4th " 6 " 1851, unknown, bull.
 5th " 7 " 1852, 278 days, "
 6th " 8 " 1853, 279 " heifer.
 7th " 9 " 1854, 276 " bull.
 8th " 10 " 1855, 279 " heifer.

The following spring, this cow died, before calving. Is daughter of Suky, No. 3.

7. Polly, out of Molly, No. 2—a mischievous black cow—

1st calf at 3 yrs., 1850, unknown, bull.
 2d " 4 " 1851, 286 days, "
 3d " 5 " 1852, 280 " heifer.
 4th " 7 " 1854, 283 " bull.
 5th " 8 " 1855, 290 " "

Butchered.

8. White-face, out of Dolly, No. 1—

1st calf at 2 yrs., 1850, 288 days, heifer.
 2d " 3 " 1851, 277 " "
 3d " 4 " 1852, 293 " bull.
 4th " 5 " 1853, 282 " "
 5th " 6 " 1854, 284 " "

Sold.

9. Rose, brindle, born in 1851, from White-face, No. 8—

1st calf at 3 yrs., 1854, 282 days, bull.
 2d " 4 " 1855, 276 " heifer.
 3d " 5 " 1856, 281 " "
 4th " 6 " 1857, 284 " "
 5th " 7 " 1858, 276 " bull.
 6th " 8 " 1859, 287 " "

10. Cherry, lean, red cow, 1853, from Sally, No. 6—

1st calf at 2 yrs., 1855, 274 days, heifer.
 2d " 4 " 1857, 279 " bull.
 3d " 5 " 1858, 273 " heifer.
 4th " 6 " 1859, 279 " bull.

11. Suky, yellow, 1855, from Sally, No. 6—

1st calf at 2 yrs., 1857, 275 days, heifer.
 2d " 3 " 1858, 279 " lost.
 3d " 4 " 1859, 281 " bull.

12. White-face, from Rose, No. 9, 1854—

1st calf at 3 yrs., 1859, 285 days, heifer.

13. Sophy—mischievous red cow, bought at a vendue, at 4 years old, in 1856. Time with first 2 or 3 calves unknown.

4th calf at 7 yrs., 1859, 275 days, bull.

The time of gestation in 66 cases, varies from—

273 to 293 days with a heifer calf.
 276 to 296 days with a bull calf.

From these tables, it will be perceived that nothing like uniformity exists; the difference between the longest and shortest periods being twenty days, while, at the same time, it will be observed, that there is considerable difference in the same individual at different gestations; this amounts, in No. 1, to 14 days. These tables also show that, contrary to the popular opinion, the age of the cow has very little, if anything, to do with the length of the period of gestation, but that this depends rather upon the idiosyncrasy of the animal; some yielding a higher average, and some a lower. Another fact, deducible from these observations, is that the average length of gestation is longer by three days in bull calves, than in heifers.

The French law puts the legal limit of gestation at 300 days. If we take Simpson's position, deducting an excess of four days, the present tables would bring the legal limit in the human female to 293–4 days. I shall continue these researches, and they will in due time be recorded.—*Med. and Surg. Reporter.*

PRINTING ON TINTED PAPER.

MR. STREATFIELD, the editor of the "Ophthalmic Hospital Reports," gives the following reasons for printing that work on tinted paper. Mr. Babbage made the observation that colored paper is more favorable to distinctness than white. He subjected the matter to experiment by printing a page on paper of various shades and colors. Almost all those consulted agreed in giving the preference to the colored papers; but the particular tint was not so unanimously fixed upon. Yellow appeared to have the preference. Several editions of Mr. Babbage's "Table of the Logarithms" have been printed on the *same* yellow paper; some have also been issued on white paper, but the former are always most in demand. A gentleman much in the habit of using logarithms, ordered of his bookseller Mr. Babbage's work, and unexpectedly finding it printed on colored paper, he was much disappointed; but afterwards he was so much pleased with it, that he wrote to Mr. Babbage, saying, that whereas he had only been able to use his eyes at night with books printed on white paper for an hour without resting them, he could, with the new book, continue for three hours without exertion. Mr. Streatfield believes that as the yellow paper of Mr. Babbage's book is so pleasant for candlelight use, so that now used for the "Ophthalmic Reports" is better for ordinary daylight. He believes that the color should be deeper in proportion to the size of the type, for he has observed that large placards on paper of a darker shade than could be used for any printed book, are very easy to be read. There appears, therefore, to be more philosophy in advertising posters than was dreamt of. Mr. Streatfield does not know why it is thought desirable to obviate the yellow color of some artificial light, and yet that the yellow-covered paper is most agreeable for reading; if it is so—and Dr. Wilson says, "Yellow is unquestionably the color most *visible* to all eyes,"—the reason remains to be proved; but it has occurred to him, that the organ of vision only requires for its use the luminous rays of the spectrum, not the heating or chemical rays, which, no doubt required for our health in other ways, are not necessary for seeing. Yellow occurs near the centre of the spectrum—i. e., away from the heating and chemical rays (farthest from the latter); and green, which, next to yellow, seems to be pleasantest to read with, is next to it in the spectrum, and *equally* remote from its heating and chemical extremities, where, moreover, it appears that the colors most fatiguing to the eye are found. The printers remark that the new paper "takes the ink" particularly well—a fact of some importance where wood cuts are concerned. The subject is evidently one of great practical interest, and deserves careful scientific and experimental study. The curious phenomena of snow-blindness are interesting in relation to this subject.—*Lon. Lancet.*

NEW APPLICATION OF CHLOROFORM IN NEURALGIA AND IN CERTAIN RHEUMATIC COMPLAINTS.

[At a meeting of the Medico-Chirurgical Society of Edinburgh, Mr. Little, F.R.C.S.E., of Singapore, made the following communication, which we reprint from the *Edinburgh Medical Journal* for April, 1860.—Eds.]

During my residence at Singapore, East Indies, I was at one time in the habit of using liquor ammoniæ to produce an immediate blister, when instantaneous counter-irritation was thought necessary in certain cerebral affections, &c.—a piece of lint soaked in ammonia being applied to the part, and covered with oil-silk, when in a few minutes so much irritation was produced as to raise a blister. In administering chloroform to my patients, I noticed that their lips were often partially blistered by it; and recollecting the mode of using the ammonia, I thought of trying the chloroform in the same way, but found that neither oil-silk nor gutta percha tissue would answer. I then used a watch-glass to cover the lint soaked in it, and with the best effect.

The manner of application is to take a piece of lint, a little less in size than the watch-glass to be used (which need not be more than two inches in diameter), to put it on the hollow side of the glass, to pour on it a few drops of chloroform sufficient to saturate it, and then to apply it at once to the part affected, keeping the edges of the glass closely applied to the skin by covering it with the hand, for the purpose of keeping it in position, as well as of assisting the evaporation of the chloroform. This may be done from five to ten minutes, according to the amount of irritation wished for.

The patient during this time will complain of the gradual increase of a burning sensation (not so severe as that produced by a mustard sinapism), which reaches its height in five minutes, and then abates, but does not entirely disappear for more than ten minutes.

To ensure the full operation of the remedy, it is necessary that the watch-glass be rather concave, that it be closely applied to the skin, and that the hand applied over it be sensibly warm. The immediate effect of the application is to remove all local pain in neuralgia, and relieve that of rheumatism.

Its effects on the skin are at first a reddening of the cutis, which in some cases is followed by desquamation of the cuticle; but this depends on the part to which it is applied, and also upon the susceptibility of the individual. In some cases, if the application is prolonged, a dark brown stain remains even for a week or ten days, the same effect as sometimes follows the use of a mustard sinapism.

In Singapore I have used chloroform after this fashion in various neuralgias of the face, in inflammations of the eye and ear, in

one case of angina pectoris, in several cases of neuralgia affecting the abdominal parietes, in lumbago, dysmenorrhœa, and in pain attending congestion of the ovary, &c.

Personally, I can testify to its great efficacy in two severe attacks of rheumatic inflammation of the eyes, in which the pain came on periodically about 3, A.M., with such severity that I thought the loss of sight itself would be preferable to its continuance. All other remedies, such as blisters, leeches, opium externally and internally, belladonna, &c., were of no avail in soothing the pain; water, almost boiling, applied by a sponge, giving only a little relief. I then thought of this use of chloroform, remembering how much it had benefited my patients in other similar affections. The first night, the application of it to the temple relieved the pain in ten minutes; on its return the next night, the application again relieved it; and four times only was it required to remove completely the local pain; allowing, in the meantime, constitutional remedies to produce their effect. Since my return to this country, I have recommended this remedy on several occasions to persons suffering from neuralgia of the face and head, and always with the same good effects as in India; and the other evening one of my domestics was quickly and effectually relieved by it of a painful spasmodic contraction of the platysma myoides muscle, which prevented her raising her head from the chest. The chloroform was applied as directed, with immediate benefit, and next morning she was quite well, though in previous attacks several days elapsed before relief was obtained. I have mentioned this method to several medical men of this city, who have found it of great benefit; and that it may be more extensively known, is my reason for now bringing it before the profession.

Dr. Keiller mentioned that this plan had been tried with success in his wards.

Dr. Wright had used chloroform for similar purposes, by pouring it into a bottle containing blotting-paper, and applying it over the affected painful part. He has found it sometimes produce vesication, and leave a mark on the skin; but it had been effectual in removing pain.

[Mr. Little has received the following letter from Dr. Sclanders, House Physician to Dr. Keiller in the Royal Infirmary.

ROYAL INFIRMARY, March 14, 1860.

MY DEAR SIR,—I have much pleasure in giving you the result of my experience in regard to the external application of chloroform in the way proposed by you. Soon after you made me aware of it, I saw a friend of mine, who suffered frequently from neuralgia of the left forehead. I proposed the remedy to him, and with the effect of immediately removing the pain. Owing to my having kept it too long applied, vesication ensued. Since then he has had no return.

I have since used it in several cases of neuralgia of the ovary and pleurodynia, as also in two cases of rheumatic pains in the joints, with marked benefit.

I am, yours truly,

DR. LITTLE.]

ALEX. SCLANDERS.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, AUGUST 2, 1860.

WHEN, six months ago, we assumed the charge of the *MEDICAL JOURNAL*, we could only express our wishes, hopes and fears. The first have been partially gratified, the last partially allayed. The second still sustains us, for we know that the resources of our city have not been exhausted. Still, at this season of the year, when all have a right to be inactive, our anxiety increases, and we are not at all sustained by the "wholesome stimulus of prospective want." Stimulus can be of no service to us, and our wants are immediate, imperative. This will be understood, if the nature of our labors is borne in mind. We are, as it were, workers in mosaic. We cannot furnish materials. These must come from other hands. To make a selection from these, and arrange them in the proper form, is our duty. To those who have aided us, we return our thanks; to those who have promised to do so, we still look.

VERMONT MEDICAL SOCIETY.—The Vermont Medical Society held its semi-annual meeting at St. Johnsbury, on the 26th and 27th of June, 1860, the President, Dr. E. A. Knight, in the chair. After the reading and acceptance of the minutes of the last annual meeting, the following gentlemen were elected members of the Society:—Drs. G. B. Bullard, S. Newell, James Lang, T. T. Cushman, G. M. Buffum, W. A. Weeks, and Charles S. Cahoon.

The forenoon of the 26th was passed in the discussion of various medical topics, in which the President, Drs. Newell, Brown, Frost, Bullard, Lang and others participated.

On the second day, among other interesting subjects discussed was the use of *veratrum viride* in pneumonia.

Dr. Perkins regarded this remedy as a very powerful one, and hence requiring care and discretion in its use.

Dr. Phelps remarked that the suggestion was made years ago, that it seemed to act with peculiar efficacy in congestive cases. Some years since, he commenced the use of that medicine. He found that the addition of an acid to the tincture of the dried root, seemed to obtain its properties more fully. The freshly dried root he found more reliable. The medicine seemed more efficacious when given in the early stages of the disease. Though the *veratrum* is valuable, yet we must not suppose that the patient will certainly recover. Of the pathology of the disease, he said that the inflammation and congestion were not confined to the parenchyma, but involved also the mucous surface of the air-cells, and in those cases he regarded the medicine peculiarly applicable.

Dr. Clark regarded the remedy a valuable one in the early stages of the disease.

Dr. Bullard gave it to one patient, and was frightened by its effects. The patient got well, but he dared not try it again. He would now venture it, however, after hearing it so well spoken of.

Dr. Kellogg had not met with the marked beneficial effects that the representations of others had led him to anticipate. He regarded the medicine as a *ticklish one*, and caution was necessary in its use.

Dr. Knight's experience gave him much confidence in the remedy. He was convinced that cases had recovered which would have proved fatal had it not been for the veratrum. He would now scarcely know how to treat pneumonia without it.

Dr. Weeks inquired whether veratrum had been used in other diseases. He found good effects from its use in hæmorrhoids, by injection and unguent.

The discussion elicited the statement that the different preparations in the market were not made with the same article. The agent of Dr. Thayer told Dr. Knight that his preparation was made with garget or poke. Tilden's is made with hellebore.

HYPODERMIC MEDICATION.—The subject of hypodermic medication is now attracting much attention. Much has been said about its great efficacy in neuralgic affections, where the effect is supposed to be a local one, though, at times, the constitutional symptoms are quite marked.

The results of experiments performed by Dr. I. Langer, of Davenport, Iowa, with sulphate of quinine, and reported in the *New York Medical Press* for June 16th, 1860, prove that this drug, at least, acts after its absorption. The article is quite lengthy, but the following conclusions contain the substance of the author's labors.

"1st—Certain agencies most powerful when hypodermically used, will become inefficacious when administered in stomach doses.

"2d—Sulphate of Quinine injected into the areolar tissue will act quicker, more powerful, and with equal if not with more certainty in subduing the primary symptoms of malarial infections, than when administered by the mouth.

"3d—Sulphate of Quinine injected under the corium even in large doses, one scruple at one injection, will not produce excessive cephalic symptoms.

"4th—Sulphate of Quinine injected under the corium, if necessary, during a paroxysm, will be followed with less aggravated symptoms than in a stomachic dose.

"5th—Where Sulphate of Quinine is indicated, the local irritation of the stomach and appendages constitutes no contra-indication.

"6th—The injections must always be made under the corium.

"7th—The solution must be rendered neutral to avoid unnecessary pains.

"8th—For the same purpose—also for dissolving the crystals sometimes precipitated in a solution of the Sulphate of Quinine—the temperature of the solution must be increased to blood heat and over.

"9th—Sulphate of Quinine hypodermically applied, is received into the system in a greater state of purity than when given by the stomach, where it may become contaminated or decomposed."

THE BRITISH ASSOCIATION AT OXFORD.—The “savans” of the Chemical Section have been solving the difficult problem of the deodorization of sewerage; per-chloride of iron has been decided on as the most useful of the agents suggested. The celebrated Leicester plan proves to be a failure, as the deodorized matter is useless to the agriculturist or farmer. The Physiological Section was engaged in some very important physiological experiments, originating with Dr. Pavy, Mr. Durham, and the School of Guy’s Hospital, on the nature of “Sleep,” together with the condition of the circulation of the blood in the brain during the unconsciousness of sleep. According to these researches sleep seems to be attended with a state of minus or lessened activity: if at least the experiments may be trusted, by which a portion of the covering of the brain in animals, like dogs, pigeons, etc., is removed carefully under chloroform, and in a week after the brain is watched during the state of sleep. Sleep is then observed to be a state of the brain where the blood does not circulate as it had done previously. Intimately bound up with this subject of sleep is the question also of “sea sickness,” as both seem to depend on disturbed balance or unsettled equipoise of the circulation in the brain from external causes. Two papers, one on the Physiological Action of Aconite, and a paper by Dr. Kidd, of Sackville Street, London, on some new facts connected with the safe administration of chloroform, brought together large meetings of the section. Dr. Kidd showed that the alleged or supposed facts relied on as to diseased heart in relation to chloroform, as also the popular doctrine of accidents from valvular disease of the heart especially, are quite fallacious. Chloroform is perfectly free from danger when used with skill, as free from danger as any other active remedy. All the deaths from chloroform have been in trivial operations, such as tooth-drawing, from the chloroform having been applied in an ignorant or trivial manner. A very animated and highly scientific debate followed this paper, Sir Benjamin Brodie, who was present, agreeing in some measure with the views entertained by Dr. Kidd.

The closing meeting of this association took place on Wednesday afternoon, the President, Lord Wrotesley, in the chair. The Secretary (Professor Walker) read the grants of money appropriated to scientific objects by the General Committee at the Oxford meeting in June and July, 1860; the total amount being £1,395, including £500 for Kew Observatory, and £150 for committee on steamship performance. The noble chairman, in his farewell address, alluded to the success that had attended the meeting. Professor Philips announced that the meeting of 1861 would take place at Manchester, and probably in the month of August, and that William Fairbairn, Esq., C. E. F.R.S., of Manchester, had consented to preside.—*Scottish-Amer. Journal, N. Y.*

THE MEDICAL ACT (1858) AMENDMENT BILL.—This bill, which has just been printed, is evidently intended mainly to remove certain doubts which have arisen as to whether, in case of the acceptance by the Medical College of new charters under the altered names proposed in the Medical Act of 1858, the powers and privileges of these bodies would be fully preserved to them under their new charters. The bill accordingly expressly provides that though the Royal College of Physicians of Edinburgh should receive a new charter under the name of the Royal College of Physicians of Scotland, and though the medical

colleges in England and Ireland should also receive new charters under the altered names proposed in the Medical Act, they shall retain all existing rights notwithstanding their change of name. The bill also repeals the provision in the Medical Act which entitles any Fellow, Member, or Licentiate of the Royal College of Physicians of Edinburgh, or of the King and Queen's College of Physicians in Ireland, to receive the diploma of the College of Physicians in England.—*Scottish-American Journal, N. Y. City.*

CHICAGO CHARITABLE EYE AND EAR INFIRMARY.—We learn from the second annual report of this Institution, that during the past year *one hundred and seventy-seven* patients have been under treatment, making an aggregate of *two hundred and ninety-two* patients since the establishment of the Institution, two years since. These patients have all been from the poor and destitute classes of society.

THE CANCER POISON.—Dr. Lemarchand, formerly a naval surgeon, has just died at Landerneau (Department of Finistère, France), at the age of fifty-eight, in consequence of a puncture with a suture needle, which had lain some time in a wound made for the removal of a cancerous tumor.—*Lancet.*

THE NEW FRENCH CODEX.—The Pharmaceutical Society of Paris is at present preparing the materials for the drawing up of a new codex, or pharmacopœia, with a view to facilitate the work of the committee shortly to be appointed by Government for the publication of that work.—*Ibid.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JULY 28th, 1860.

DEATHS.

	Males.	Females.	Total.
Deaths during the week,	53	43	96
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	46.2	41.5	86.7
Average corrected to increased population, . . . . .	..	..	98.9
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infantum.	Scarlet Fever.	Pneumonia.	Measles.	Smallpox.	Dysentery.
14	11	6	1	1	6	1

METEOROLOGY.

From Observations taken at the Cambridge Observatory.

Mean height of Barometer,	29.939	Highest point of Thermometer,	81°
Highest point of Barometer,	30.220	Lowest point of Thermometer,	54°
Lowest point of Barometer,	29.530	General direction of Wind,	Westerly.
Mean Temperature,	68°.0	Whole am't of Rain in the week	0.627 in.

NOTICE.—We are requested to announce that the Forty-first number of Braithwaite's Retrospect was mailed, on the 28th ult., from this office, to all members of the Massachusetts Medical Society whose names are on the Treasurer's book as having paid their assessments. Those who have paid and have not received the number, are requested to forward their receipt, or its counterpart, addressed to the Librarian, at the Medical and Surgical Journal office, and the work will be sent by return mail.

BOOKS RECEIVED.—Ranking's Abstract of the Medical Sciences. (From the Publishers.)

Deaths in Boston for the week ending Saturday noon, July 28th, 96. Males, 53—Females, 43.—Accident, 2—apoplexy, 1—inflammation of the bowels, 1—congestion of the brain, 2—disease of the brain, 2—inflammation of the brain, 1—cholera infantum, 11—cholera morbus, 2—consumption, 14—convulsions, 4—croup, 2—debility, 3—diarrhœa, 1—infantile disease, 1—dropsy, 1—dropsy in the head, 2—drowned, 2—dysentery, 1—epilepsy, 3—crystalline, 1—scarlet fever, 6—typhoid fever, 2—disease of the heart, 2—hernia (trunculated), 1—laryngitis, 1—disease of the lungs, 1—inflammation of the lungs, 1—marasmus, 3—measles, 1—old age, 1—palsy, 2—pneumatelectasis, 1—premature birth, 4—rheumatism, 1—scalded, 1—smallpox, 6—strangled, 1—tabes mesenterica, 1—unknown, 2—whooping cough, 1.

Under 5 years, 55—between 5 and 20 years, 9—between 20 and 40 years, 15—between 40 and 60 years, 11—above 60 years, 6. Born in the United States, 82—Ireland, 12—other places, 2.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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THURSDAY, AUGUST 9, 1860.

No. 2.

ON THE CAUSE OF SUDDEN DEATH IN PARTURIENT WOMEN.

[Read before the Boston Society for Medical Observation, and communicated for the Boston Medical and Surgical Journal.]

BY WILLIAM READ, M.D., FORMERLY PHYSICIAN TO THE BOSTON
LYING-IN HOSPITAL.

In the recent volume of transactions, published by the Obstetrical Society of London (Vol. I., page 214), may be found a short article on this subject, illustrated by two cases. In one, a *post-mortem* examination was made, and a firm clot was found in the heart and pulmonary artery. The other case was similar in its symptoms, but no examination having been made, no verification of the cause was obtained. The reporter, Dr. Draper Mackinder, states that no satisfactory conclusion has been arrived at, with respect to the nature of the affection; and that, upon communicating with Prof. Simpson, he received no additional information, the latter being then engaged in investigating the subject.

That these cases should have made a deep impression upon the reporter's mind, is not to be wondered at when we consider the facts. Two mothers, who had survived the ordinary dangers of childbirth long enough to apparently place them beyond the reach of complications arising therefrom, were, with scarcely a moment's warning, stricken down by death. Instances of like nature have doubtless occurred to many of the readers of this JOURNAL, and reports of cases, in which the same train of symptoms has occurred, have been made to the writer, but with no satisfactory explanation of the cause. Believing that the principle upon which the avoidance of such accidents is based, is sound, and from a conviction that the subject is one of the very first importance in the treatment of women subsequent to labor, the following article has been prepared, with the hope that by a dissemination of the knowledge of the *cause* of this most untoward result, its occurrence may be prevented. Prof. Meigs, of Philadelphia, has borne the amplest testimony on this point in his treatise on obstetrics, in which, under

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the term *Heart-clot*, he has treated of the effect of the parturient hæmorrhage in producing the condition, which, to so great an extent, predisposes the patient to this affection. ("Obstetrics; the Science and the Art." Philadelphia, 1852. P. 348 *et seq.*)

The effect of depletion in any way, by general or local bleeding, to increase the crassamentum of the blood, and its disposition to coagulate, is well known. The mere amount of blood lost is no measure of this aptitude, for some constitutions will resist its effects, to a degree greatly exceeding that which others can endure. This fact every obstetrician is fully cognizant of. The longer the hæmorrhage goes on, the greater also becomes the liability to it, so that either by the quantity lost, the length of time the flow lasts, or by the peculiarity of the individual case, every woman in childbirth becomes more or less obnoxious to its effects.

Fainting is caused by the diminished tension of the vessels in the sensorium, and loss of blood, by inducing this condition, brings it on. "But—and this is the danger—if she faint badly while her blood is become thin and highly coagulable from hæmorrhage, the scarcely moving current partially stops in the heart, and when she comes out of the deliquium, she sometimes does so with a *clot* in the auricle and ventricle—she has got a false polypus in the heart—and she will surely die." This is Prof. Meigs's way of stating the case, and it is pregnant with meaning to every one who assumes the charge of the lying-in room.

What are the conditions? A woman is taken in labor—hæmorrhage to a greater or less extent goes on through its course, and at last produces all the effects of a slow draining of the vessels—symptoms of lassitude, faintness and disturbance of the circulation. These vary in every case, but of the general fact of their presence there is no doubt. The blood that remains in the system has been brought, by this cause, to a degree of coagulability that needs only a temporary stop to its flow through the vessels to precipitate it into a clot. Anything, which brings on this cessation of the heart's action, will be sufficient to produce it. But of all, nothing is so likely to induce it as raising the patient into an upright posture, not necessarily on the feet, but to such an extent that the vessels of the brain lose their tension, by the gravitation of the blood to a lower part of the body. With this loss of nervous power at the centre of vitality, the action of the heart stops enough to complete the mischief, and the deed is done. For the sake of more definitely fixing the diagnosis of this affection, the following cases, taken from Prof. Meigs, are here appended.

"A lady was confined, and with a natural labor, giving birth to a healthy child at term. She had lost a good deal of blood with the expulsion of the placenta, which left her weak and pallid. The physician directed her to be kept quiet, so that she had a good day and following night. On the following morning the physician found her in all respects as well as could be wished. Very soon after he had withdrawn from her chamber, she became alarmingly ill, and he was sent for and returned, having been absent about one hour. The pulse was now extremely

frequent, weak, and small, and it continued so until her death, which took place on the eighteenth or nineteenth day. It was upon the eighteenth day that I was invited to the consultation, and at once formed the opinion that she had a heart-clot as the cause of all her dreadful symptoms, and which, acting as a tampon of the heart, deranged the circulation, respiration, and innervations of the dying lady. After her decease, which occurred the next morning, a white, fibrinous coagulum was found in the right auricle, nearly filling it and projecting through the tricuspid valve into the right ventricle, the tail of the clot whipped into cords by the threshing action of the chordæ tendinæ of the ventricle. The pleura of the right cavity contained a large quantity of serum.

"When the physician left his patient's chamber on the morning of the attack, she was well enough; when he returned, after an absence of only one hour, he found her alarmingly ill. She had lost blood in the labor. He had no sooner gone than the nurse took her up, and sat her upon a vessel in bed to pass the urine. She fainted; the blood coagulated in her heart. She did not die outright, but carried on an imperfect circulation outside of the clot, and betwixt it and the walls of the heart. The red matter of the blood was gradually squeezed out from the clot and hurried into the pulmonary artery, together with numerous fragments of the remaining mass of immovable fibrine. Such concrete elements of the blood could not possibly pass through the pulmonic capillaries; whence there arose pulmonary obstructions, pneumonia, pleuritis, and hydrothorax, as the last consequences of the heart-clot. So she died about the nineteenth day.

"Towards the end of the year 1848, a primipara gave birth to her child. She was a tall, slender, and very delicate woman. The placenta was not removed. She lost a good deal of blood; probably a large quantity. Between forty and fifty hours after the birth of the child, I was called in, and removed the placenta from the grasp of the cervix, which alone detained it. It was so putrid that the stench of it could not be removed from my hand, by any means that I could employ, for full twenty-four hours. She was pale, and her pulse was somewhat frequent, but not enough so to annoy me. The next day I found her *comfortable*; the milk had come, and she was doing well, though very pale. On the seventh day, she was put into a chair and set before the fire. Immediately she fell sick, was put to bed very ill, and I being hastily called, told her friends that she had formed a heart-clot, because she had been imprudently taken out of bed, set up, and thus made to faint. In that fainting fit the blood lost the vital induction, and coagulated as it died. She died, as any woman may be expected to do who is so treated, under such circumstances of debility and exhaustion."

How important, then, that the period succeeding labor, should be watched with the utmost vigilance—so as to prevent those *performances* which nurses, and patients themselves even, often insist on, against the most direct and positive commands of the attending physician—restraints which they attribute to dogmatism and old bettysism, and which it seems to be, in many cases, a mark of good sense and heroism to infringe. Heroism, indeed! but at what a risk!

The calls of nature press—discomfort, from foul linen and bed-clothes, induces a desire for more comfortable appliances—ignorance of the condition of the system, a desire to be considered more *smart* than her friends, or various reasons, prompt the patient to a change of position. She may not suffer, for, by good fortune, her temperament may be one that is not easily affected by the circumstances of her position, and she may escape. But no one can predict this immunity, and wise precaution is none the less needful, on account of the exceptions which may occur. No fixed time can be determined, after which the danger of this complication is past, for this reason—that it is impossible to exactly measure

the effect of the hæmorrhage, in any given case, without subjecting the patient to the test—the very thing of all others to be avoided.

The recumbent position, therefore, should be insisted on for such a length of time as will enable the system to recover from the shock of the hæmorrhage resulting from the labor; till we are satisfied by the concomitant symptoms that no danger will result from assuming any desired position. And in this connection, it may be well to consider whether a longer oversight than is generally given to patients in childbed, is not called for by the exigencies of the situation. There may be no need of active medication, but the continued visits of the medical attendant will at least impress on the mind of the patient a necessity for greater caution than if she was left to her own guidance, and that of the nurse—oftentimes the source of much mischief, by routine habits, and ignorant, wrong-headed notions of treatment.

From the connection in which the article noticed comes to us, as one of the printed transactions of a Society numbering amongst its members some of the most eminent obstetricians of the British empire, and from the nature of Prof. Simpson's answer to Dr. Mackinder's inquiry, it is fair to infer that but little is there known, definitely, concerning it, and that the author of the paper is not alone in his want of information regarding its history and cause. It is upon this very point that Prof. Meigs's work will be found to answer every need. The practitioner will there find the whole subject amply and clearly set forth, and with a degree of detail that leaves little to be desired. It is with both pride and pleasure that we point to him as an American authority, and have at this length endeavored to bring the subject before the profession more prominently than it has been heretofore, with the belief that, under Providence, it needs only an appreciative knowledge of the cause of this fatal result, so much to be dreaded, to avoid its occurrence.

THE PHYSIOLOGICAL ACTION OF CHLORATE OF POTASSA.

[Translated for the Boston Medical and Surgical Journal from a Memoir read by M. E. A. Isambert before the Société de Biologie, 1856—Page 3 of Memoir for that year.]

DR. ISAMBERT experimented upon himself and others with the following results. He found, 1st, that the chlorate of potash is absorbed and eliminated with great rapidity, and that it is eliminated unchanged (still in the form of a chlorate), and consequently cannot furnish oxygen to the system, as has been supposed. 2d, That the principal channels for its elimination are the salivary glands and kidneys. Traces of it are detected in the saliva within five minutes of its ingestion, and ten minutes later in the urine. At the end of an half hour the process is at its maximum intensity,

and it persists from fifteen to thirty-six hours. The duration of the elimination does not seem to depend upon the dose. It was nearly the same with doses ranging from one to twenty grammes daily. Dr. Isambert has detected it in the milk of two nurses who were taking it as a medicine.

He has found it in the nasal mucus, the tears and perspiration. Its presence in the fæcal matters he regards as doubtful, but thinks there is reason for believing that it passes into the bile.

3d. Dr. I. has ascertained the following facts in regard to its physiological action:—

Doses of from one to four grammes daily produced no appreciable results.

Doses of eight or more grammes induced a decided impression, lasting two or three hours; this was accompanied by a saline taste, apparently identical with that of the chlorate of potash. Although less powerful than a mercurial salivation, the results of overstimulation were apparent in a weakness of action of the salivary glands for five or six succeeding days. A slight alteration in the voice was noticed. The intensity of the salivary excitation was proportional to the dose administered.

The only constant effect upon the digestive function was an increase of the appetite. In one case, a slight pyrosis followed the use of a large dose, given in too concentrated solution. It never occasioned diarrhœa, although the fæces were often tinged with green.

In high doses it possessed well-marked diuretic properties. Twenty grammes daily induced frequent micturition, and a slight sense of pain and weight in the lumbar region. The urine, during the whole time of its elimination, was *strongly acid*, and deposited urates abundantly.

It slightly increased the secretion of the pituitary membrane.

Its action upon the respiration, nervous system and circulation (the latter being in a healthy state) was inappreciable. When the circulation was unduly excited, it seemed to exert a sedative influence upon it.

No inconvenient effects have been experienced from taking large doses for several consecutive days. M. Socquet has taken thirty grammes (gr. 450) with impunity.

The facts above stated show that it acts in a manner similar to the iodide of potassium, and has little resemblance in its properties to the alkaline carbonates, among which, as a therapeutic agent, it has been classed.

Dr. Isambert devotes a large portion of his paper to the discussion of the uses to be made of the chlorate of potash in therapeutics. The results are precisely what one would infer from a careful study of its physiological action.

C. F. C.

REPORT ON TWENTY-FOUR CASES OF TRACHEOTOMY, PERFORMED IN THE LAST STAGE OF CROUP.

BY DR. FOCK.

IN this paper Dr. Fock gives an account of the cases of tracheotomy for croup which have occurred in his practice, and that of his colleagues, at the Magdeburg Hospital. He observes that, notwithstanding some of the leading practitioners in Germany—such as Langenbeck, Baum, Roser, and Bardleben—resort to the operation, and recommend it in their lectures, it has obtained no general admission into German practice. Of these 24 cases, 10 were successful, the particulars of both these and the unsuccessful cases being exhibited in a tabular form. To this statement Dr. Fock appends some observations.

1. These cases are decidedly in favor of the operation, inasmuch as it was not resorted to until a stage of the disease when death seemed quite inevitable without it, notwithstanding the persevering employment of the various remedies. The saving ten out of twenty-four children, apparently absolutely condemned to die, cannot be regarded as other than a great success. It is not desired to draw from these facts the conclusion that the operation should be resorted to in every desperate case of croup, although it is very difficult to indicate in which of such cases it should be abstained from. It would be a mistake to estimate the degree of danger alone from the amount of dyspnœa; for even when this becomes suffocative during the operation, success may yet be the result. As a general rule, it may be stated that the most favorable prognosis may be delivered in those cases which exhibit themselves from the first as pure croup, and are attended by constantly increasing paroxysms of dyspnœa; while the contrary is the case when there has been a preliminary bronchial catarrh during several days, and when the child, after seeming to be in a state without any peril, suddenly passes into a condition of actual croup. Either on account of the small quantity of air which enters through the contracted larynx, no bronchial *râle* is produced, or its existence is masked by the laryngeal sounds. The operation is resorted to, and the child in all probability dies with bronchitis and pulmonary œdema. When accompanying the croup, too, a wide-spread bronchitis is observable, the dyspnœa may be more dependent upon the latter than upon the obstruction of the larynx. Pulmonary œdema is probably already present, and death will take place within twenty-four hours after the operation. The difficulty in the performance of auscultation and percussion in these cases is sometimes immense, and may amount to an impossibility. In such instances we can only fall back on the history, and remember that cases of croup in which the disease has become developed with rapidity and violence are more favorable for the operation than those in which it has for some days been preceded by catarrh.

In the latter cases the operation should be declined. Again, the prognosis has always been, within the author's experience, of a favorable character when the depressions below the larynx and at the epigastrium become very marked during inspiration. The exaggerated actions of the inspiratory muscles, especially the accessories, augment such depressions much when the lungs are entirely free, and the obstacle is only placed in the larynx; but the smaller amount of such depression is quite remarkable when there is co-existing pneumonia, extensive bronchitis, or pulmonary œdema. In such cases the probabilities of success are too small to warrant our undertaking an operation. Lastly, the constitution should influence our prognosis. It is decidedly more favorable in thin, long-necked children than in those of an opposite conformation. In determining whether we shall operate in a given case, we have to ascertain whether the after treatment, as regards watchfulness, skilful nursing, &c., can be secured—matters which, however easily provided for in a large town, and in a hospital, may not be attainable in a country district; and yet upon them the result may entirely depend.

2. As to the operation itself, the reporter enters into the details and difficulties of its performance, which we need not repeat. He says he always resorts to chloroform, which renders the operation far more easy of performance; and he has never, even in extreme dyspnœa, found any ill effect to result from its employment. At first the dyspnœa is increased by the inhalation, but the narcosis is speedily established, and then the breathing becomes much calmer than before.—*British and Foreign Medico-Chirurgical Review*, from *Deutsche Klinik*, 1859, Nos. 23, 24, 25.

TWO CASES OF PURPURA.

By J. T. CALHOUN, M.D., OF RAHWAY, N. J.

PURPURA is by no means a common disease, and the two cases reported below were, as far as my limited reading and the experience of my professional friends go, quite anomalous in their character. Neither of the cases occurred in my practice; yet in one of them I had the misfortune to be the patient, and it was therefore of considerable, yet painful, interest to me.

On the 22d of February last, while in the enjoyment of perfect health, I noticed a painful spot at about the centre of the gastrocnemius muscle of my right leg. I first noticed it during the morning, but thought nothing of it at first. By evening, the pain had so increased, that I could walk but with difficulty. I called the attention of my friend, Dr. Lewis Drake, to it, asking its nature. He deemed it neuralgic or rheumatic; and, as I had been up late the previous evening and exposed to cold, and as I was somewhat subject to neuralgic affections, I acquiesced in the diagnosis. My

friend and late preceptor, Dr. Abernethy, who saw me the following day, differed with us, thinking it more likely the result of a strain; but, as the pain and swelling soon extended to the knee and elbow joints, he joined us in the belief that it was rheumatic, and I accordingly commenced a course of treatment for that affection.

Five days after the commencement of my sickness, the distinctive spots of purpura showed themselves upon my right leg, and spread from thence to other parts of the body. They were of a bright, livid, red color, resembling a *nævus* more than any thing. Before the appearance of the distinctive spots, the affected part swelled, the skin became tense, and the most *intense pain* was experienced in the part. The least touch or motion of the part produced an aggravation of the pain already almost unbearable. The weight of the bedclothes could not be borne, and the slightest jar of the bed was enough to extort a scream. When the swelling had reached its height, which it did in a few hours, the spots of purpura showed themselves. Pressure upon them produced no alteration in color. After remaining for a lesser or greater length of time, the color of the spots gradually commenced to fade, and with their disappearance the swelling and pain subsided. The skin was left of a dirty yellowish color. The different parts of the body were successively attacked. The penis and scrotum, although enormously swollen and covered with purpural spots, pained but little. The pain was worse in the arms and fingers, and, with the exception of the scrotum, less felt in the face than any other part. The eyes were completely closed by the swelling, and the lids became slightly oedematous. From the face, the purpura travelled through the nasal passages to the throat. The uvula and fauces were enormously swollen, so that deglutition was difficult. From the throat it travelled the whole length of the alimentary canal, its progress being marked by the same intense pain. Some dyspnœa was produced when the lungs and heart were slightly affected. When the disease was in the bowels, a slight hemorrhage, amounting to but a drachm or two, took place, and this was the only hemorrhage which occurred during the whole progress. This was the course of the disease, which occupied about a week, recurring successively every week, and each successive attack decreasing in severity and in the number of parts affected.

It continued for six weeks; at the end of which time, though very stiff and lame, I managed to leave the house. But, during the three or four weeks of convalescence, after I left my bed, small patches of purpura would still show themselves, although each successive crop of patches (if I may so term the repeated extravasations) was darker and less livid in color than the preceding. During some of the time I was delirious, and I am disposed to believe that it was due to the disease having appeared in the brain, or its meninges rather, for at other times my head was remarkably unaffected.

I was under the care of Dr. Abernethy, who had the assistance of Drs. Drake, Hough, and several others of my medical friends. No specific treatment was adopted. The various symptoms were treated as they occurred. Pain was relieved by large doses of morphine. The great swelling of the throat, which promised to close it up completely, was abated by inhalation of the vapor of warm milk. Ulcers, which formed upon the fauces and uvula, were touched with the solid argent. nit., and afterwards with a strong solution of the chlorate of potash. The bowels were kept open with laxative doses of magnesia calc. The extreme fetidity of the evacuations was combated by the addition of pulv. carb. ligni to the magnesia. The local application was diluted alcohol, which I fancied afforded a little temporary relief. As the disease assumed a clearly periodic form, sulphate of quinia was given in full doses in the interval between the attacks, but with no observable effect. During the latter stages of the disease, the fingers, without showing any sign of purpurul extravasation, would swell, become intensely painful, and throb like a forming paronychia, which indeed they might have been mistaken for. The local application of a plaster of ext. belladonnæ appeared to relieve the pain of them. As debility showed itself in the last stages of the disease, mineral tonics, iron and bark, with sarsaparilla and yellow dock, were freely exhibited. Wine and eggnog were taken in small quantities. The convalescence was slow and tedious; indeed, I could not say that I was convalescent until after a trip to the hills of Massachusetts, which I took about a month since.

CASE 2.—This case also occurred in the practice of Dr. Abernethy, to whom I am indebted for the particulars of it. T. L. J. S., æt. 18, was taken in April last, with pain and soreness in his thigh, over the seat of a former fracture. In two or three days, the characteristic extravasations of purpura showed themselves about the knee, and spread from thence to other parts of the body. It is unnecessary to particularize the symptoms, which were the same as in the case described above. The same intense pain was one of the marked symptoms, abating and recurring as in my own case. The viscera of the thorax and abdomen were very extensively and severely affected. A slight hemoptysis, with dyspnœa, attended the attack upon the lungs. When the heart became involved, the patient suffered excruciating pain, which was so severe as to be almost unbearable. Slight hemorrhage from the bowels took place; but from the bladder was the most blood lost. Large quantities were passed with the urine. The treatment was substantially the same. Blisters over the heart and bladder relieved the pain when other means failed. The hemorrhage was controlled by the internal administration of ol. terebinth. Convalescence is not yet fully established, and the patient is now at the sea-shore, improving slowly. Patches of purpura occasionally show themselves, but not accompanied by the painful symptoms. In the first

case, the spots appeared in uniform diffused patches; but in this case they were occasionally seen in stripes, looking as if the patient had been severely cowhided.

Without attempting to draw any deductions from the two cases, I wish to call the reader's attention to their striking similarity in certain respects. Both patients were attacked by the disease when in perfect health. As regards myself, I never felt better in my life than just before I felt the pain in the calf of my leg. Both were attended by *pain of the most agonizing description*, and in both the successive attacks assumed periodicity, yet could not be controlled by anti-periodics. I believe that to purpura no definite cause has, as yet, been authoritatively assigned; but in these two cases there may be a fact which shall serve to throw some light upon the subject. *Vegetables formed no part of the diet of either of the patients.* I do not think, that, during the winter months, I tasted vegetables over two or three times. I ate considerable fresh meat, and also pies and cake, of which I was very fond. Of them my diet was almost wholly composed. Vegetables I did not like; in fact, I had a positive aversion to nearly every thing of the kind. The same strange idiosyncrasy, or eccentricity, characterized the other patient. He lived almost entirely upon cake and pastry. Whether this diet had anything to do with the production of the disease (which was clearly purpura, and not scurvy—a disease which such diet would be more apt to produce), is more than I can determine. My friend, Dr. E. M. Hunt, of Metuchin, informs me that he had a mild case of purpura in an insane woman, who would eat nothing but cheese. Since my recovery, I have with some difficulty taken to a mixed diet; but I did not see that it hastened convalescence, which was tedious enough.—*Med. and Surg. Reporter.*

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

JULY 9th.—*Diabetes Mellitus.* Dr. EZRA PALMER reported the following case, which, he remarked, was interesting on account of the extreme youth of the patient, and the rapidity with which the disease progressed.

Death occurred June 13th, 1860, at which date the subject, a boy, was 3 years, 2 months and 12 days old. Previous to the commencement of this disease there had been an unusual exemption from illness of every kind. The expected troubles of childhood, such as scarlet fever, measles, whooping cough, &c., had not appeared. Dentition was easily passed. The only sickness at all worthy of the name was a slight croupy attack in February last, which readily yielded. Therefore the patient had not been injured by disease or fossilized by drugs.

Symptoms of ill health manifested themselves but fifty days before

death. They rapidly became very marked in character. They consisted in extreme thirst, a dry but cool skin, increasing urine, ravenous appetite, incipient emaciation, failing strength.

The average quantity of urine emitted in twenty-four hours was seventy ounces. Now as adults achieve in the same time thirty-five ounces, this patient of 3 years accomplished twice the quantity of adult life. But as children void more urine, proportionally, than adults, Dr. PALMER regarded the probable quantity of a child of 3 years as half the quantity of adult life. This patient, then, secreted four times the normal quantity. The color of the urine was of a light corn or straw shade. It contained no albumen. Uric acid was abundant. Its specific gravity was 1052, that of water being 1000, and that of healthy urine being in the neighborhood of 1010. Sugar was present in the proportion of ten per cent. Every one hundred grains of urine yielded ten grains of grape sugar. Now, as seventy ounces of urine were voided daily, it follows that seven ounces, or nearly half a pound, *avoirdupois*, of sugar, or more by weight than the child eat of solid food, passed daily through his urinary organs.

The preservative power of sugar was illustrated in connection with this case. Twenty days since, Dr. P. opened a bottle of this patient's urine, not tightly corked, which had been in his possession for forty days of summer weather, and found no evidence whatever of putrefaction. To-day, he found that the same sample had become, by the absorption of oxygen from the atmosphere, acetic acid.

Along with its troublesome symptoms, this disease has one compensating characteristic. He referred to the sweet, continued and untroubled sleep enjoyed by the patient. So productive of comfort is this phenomenon, especially in excitable, ill-tempered individuals, that an old, irritable friend of his, afflicted with the disease, regards it as a blessing, and declares, with strong and emphatic affirmations, that he would not get well if he could.

The termination of this disease is always the same. Whether the case has extended through years, or been limited to a few weeks, a rapid sinking at the last must always be anticipated. Such has Dr. P. found to be the case in some eight observations. A common history applies to the termination of them all. The patient appears quite at his ease—as well, perhaps, as for weeks. Friends even think him actually improving; when down he slides, with rapid prostration. Coma, to a greater or less extent, ensues; urine ceases to be voided; the catheter informs you that the bladder contains none; drink is no longer demanded; the bowels cannot be moved, either by fair means or foul; the breathing becomes rapid and stertorous, the chest heaves rapidly. This condition may last from one to three days before death ensues.

JULY 9th.—*Hæmorrhage from a Melanotic Eye.* Dr. BETHUNE said that on the 28th of June, a man was brought into the Eye and Ear Infirmary, bleeding profusely from the left eye. On examination, it was found that the organ was affected with melanosis. The man stated that he lost the sight of the eye three years ago. For a year past it had constantly enlarged. The hæmorrhage occurred suddenly that morning. Dr. Bethune removed the eye, which was not greatly enlarged, but much protruded, the operation being rendered somewhat difficult on account of the complete disorganization and softness of the tissues. Very little blood was lost during the operation, but bleeding

afterwards took place from the deep portion of the orbit. This was checked, but continued to ooze for two days, when it was stopped. The fungous growth had pierced the sclerotic at the outer side of the eye. Although Dr. B. had removed some ten or twelve melanotic eyes, this was the first case he recollected of hæmorrhage from the eye, and he thought it a rare accident.

JULY 23d.—*Calculus, partly Siliceous, from the Urethra of an Ox.*—Dr. BACON reported the analysis.

The calculus weighs $8\frac{1}{2}$ grains, and measures 7 lines by 3, being of an irregular shape. It is slightly tuberculated, and is mostly covered by a thin, smooth crust, like a glaze. This has a peculiar semi-metallic or iridescent lustre, and is made up of several very thin laminæ. The interior, so far as exposed, is composed of thicker layers, of a whitish color.

Portions from the shining crust, and from layers near the surface, were analyzed. They consist of carbonate of lime chiefly, with silicic acid, phosphate of lime and organic matter. The silica forms the principal constituent of some of the laminæ, and is not found in others.

In its history and general characters, this calculus resembles one presented to this Society in 1857, by Dr. Kneeland, and of which the analysis is reported in Vol. III. of Extracts from the Records, p. 150. The proportion of silica was larger in that specimen.

JULY 23d.—*Pleurisy in a Boy 13 years of age.*—Dr. FIFIELD, of Weymouth, reported the case.

The patient was William Mills, aged 13 years, who had been since birth of a very vigorous and robust constitution, never fat, but sinewy, with lean hard muscles. He is not known to have been affected with any illness whatever, in infancy or childhood. Hot or cold, wet or dry, no weather ever seemed to bring any evil to him. His parents are of the Scotch-Irish race, equally hardy.

In February last, it was noticed that he was losing flesh and getting pale. Sometimes he complained of pain in the stomach, but this would soon pass away. Never any cough. In April and May he had grown quite thin, and said that when required to stand up to recite with his class in school, he felt tired and was glad when the exercise was finished. In the latter part of May, he tried to work in a twine factory, but was not able. Still he could run about after the cow and work in the garden. His appetite was quite poor.

On the evening of the 11th of June, I was called to visit him. I found him lying in bed, partly unconscious. By shouting in his ear, he could be roused sufficiently to answer a question, and then relapse into his former state. He complained of great pain in the head. Pupils rather contracted. Skin burning hot. Pulse 120, full and hard. The parents said that he had complained of headache for two or three days, but on this afternoon he had gone up stairs and thrown himself on the bed, where his mother found him in his present condition. Before my arrival he had been delirious, getting out of bed and making water on the floor. The body generally quite emaciated. After some hesitation as to the propriety of venesection in so thin a subject, I bled him a pint. Whilst the blood was flowing he recovered his consciousness, knew me, and said his head felt a great deal better. After bleeding, I ordered a dose of calomel and jalap. Cold to be applied to the head; hair cut short.

June 12th.—Free from headache, skin still hot; pulse 120, soft, tongue with a light thin white fur, no thirst, no appetite. Abdomen not distended, no gurgling on pressure in cæcal region, no pain on pressure at that spot. Had slept tolerably well. Two dejections. Ordered spt. nit. ether dul. ℥ii., ether chloric ℥ss. M, twenty drops every fourth hour. Although the appearance of the tongue and the condition of the abdomen were opposed to that of typhoid fever, I was content to call the case one of mild typhoid, not convinced myself, however, that it was so. Until the 21st of June, i. e., ten days, the patient continued in about the same state. Skin still hot; pulse ever 120, feeble; tongue cleaner; no rose spots on abdomen; no thirst; sleep good; urine rather scanty; appetite poor; able and willing to get out of bed and sit some time in a chair; no night sweats. At this date I abandoned all idea of typhoid fever, convinced that I must search rigorously for a better explanation of the symptoms. There had not been the slightest dyspnœa. The patient coughed four or five times in the twenty-four hours, expectorating common white mucus. Never any hemoptysis. Looking at the emaciation, the state of the skin, pulse, &c., I was led to think the case one of hectic depending on latent tubercular disease. I determined to examine the chest. The patient sitting up in bed, I first tried percussion over the back, astonished to find perfect dulness of left back from base to apex. Front equally flat, not changing by position. Resonance of right side, front and back, good. Upon auscultation, I found strong bronchial respiration throughout the left back. Marked resonance of voice, neither ægophonic nor bronchophonic. In left front, bronchial respiration throughout from apex, with the addition of a light crepitus near the base. Right back, respiration normal. Right front, the same light crepitus as in left and on the same level. The pulsations of heart not seen at the left of the sternum, but well marked at the fifth and sixth intercostal spaces on the right, the apex beating strongly at the epigastrium. Left side of the chest measuring an inch and a half more than the right. Intercostal spaces certainly not in the least pushed out. With all this, no dyspnœa, but walking, bounding about, sleeping on either side.

Diagnosis. Large effusion into cavity of left pleura. No certain evidence of tubercular disease. Ordered, potass. iod., ℥i.; tinct. dig., ℥iv.; aquæ, ℥xii. Teaspoonful three times a day. Omit all other medicine. Good diet, meat of fowls and broths. Puncture advised.

June 25th.—Dr. H. I. Bowditch saw him with me. Dr. B. examined with most marked care, and confirmed the auscultatory and other phenomena observed previously. Upon the question of diagnosis Dr. B. was reserved, thinking that although the cavity of the pleura certainly contained fluid, yet the extent of dulness and of tubular respiration, and the existence of crepitus, might depend on tubercular infiltration of the lung. The prognosis was guarded. In regard to treatment, Dr. B., with that courage and frankness so eminently his characteristic, supported the proposition to puncture the chest, if there was no change in a few days.

June 28th.—Patient sitting up, dressed, eating strawberries; says his appetite is strong and digestion good. Pulse 110. On percussion, I thought I detected a little more resonance over left back for a short space below angle of scapula. Urine plentiful. No cough. Continue medicine.

July 6th.—Patient absent. Had walked a quarter of a mile, to his aunt's, where I found him. Says that he is quite well; denies any cough; is never out of breath "unless the cow runs away!" Upon percussion, resonance quite fair over left back and front. The faint crepitus of expanding lung heard. Bronchial respiration and vocal resonance gone, excepting under left clavicle, where it can be produced by forced respiration. Heart has returned to its normal situation. Pulse 100. Ordered tinct. cinch. comp.

July 14th.—Patient came to my house. Has been at work picking berries. No cough; eats well; pulse 105; weighs 73 pounds; common weight, before illness, 83 pounds. Percussion over back and front less resonant than before. Respiration as before. Chest measures half an inch more on left side than on right.

July 21st.—Came to my office. Now weighs 79½ pounds. Pulse 105. Percussion better than before. No tubular respiration to be heard. Respiratory murmur distinct in left chest, excepting at base.

Bibliographical Notices.

The Action and Sounds of the Heart; a Physiological Essay. By Geo. BRITTAN HALFORD, M.D., &c. London: John Churchill. 1859.

In a pamphlet of 47 pages, bearing the above title, Dr. Halford has concisely given the results of much careful and well-directed study of his subject. For those who lack time or opportunity to read it, the following imperfect summary of his conclusions may prove interesting.

Dr. Halford's treatise is in two parts: the first, an inquiry into the action of the heart; the second, devoted to an investigation of the cause of the sounds developed during its action.

Part I. opens with the following sentences: "It is singular that all previous inquirers into the subject of the heart's movements, from Harvey downwards, have first removed the pericardium, and then made their observations. By this proceeding they have been confused, for before the removal of the pericardium the motion of the entire organ is natural, i. e., peristaltic; but after it loses its investing membrane it may be truly said to wobble, i. e., to have an uncertain or unequal motion." After farther illustration of this position, Dr. Halford introduces an extract from a paper published in the *Lancet* (February 8, 1834) by Mr. Bryan. This gentleman's conclusions were drawn from a purely theoretical view of the subject, and may be briefly re-stated as follows:—1st. That an hollow muscle contracting to expel liquid contents, naturally assumes a spherical form, and varies greatly in its bulk. 2d. That two such muscles placed in apposition, and subject to alternate contractions (as is the case in the ventricle and auricle of the single heart), would present an ever varying external figure, that would necessarily disturb the adjacent organs. 3d. That this change of external figure is avoided in the economy by giving to the heart a conical form, in which the expansion of the auricle shall exactly fill the space left vacant by the receding base of the contracting ventricle. 4th. That this conical form is preserved, and the heart prevented from obeying the usual law of the contraction of hollow muscles, by the strong muscular bands in its interior and the disposition of its fibres.

Dr. Halford's experiments were upon asses and dogs. He removed the anterior wall of the thorax, kept up artificial respiration, and through the semi-transparent pericardium made the following observations :—

1st. The action of the heart is perfectly smooth and regular, not conveying the idea of impulse or beat. On lightly touching the ventricle, an apparent blow is felt. The "sounds" are readily distinguished by the stethoscope.

2d. The removal of the pericardial fluid renders the action tumultuous, the sounds louder, &c.

3d. The first sound occurs during the contraction of the ventricles—the second immediately after, while the auricles are filling. "It is necessary now to bear in mind, that the ascending portion of the arch of the aorta and the commencement of the pulmonary artery must be looked upon as heart when speaking of the movements of the latter, for they are equally contained within the pericardium.

"4th. During the systole, or contraction of the ventricles, the base of the heart approaches the apex; the latter, at the same time, is pressed downwards, backwards, and from right to left, describing part of a circle; the ventricles, assuming a contracted globular form, descend, describing also part of a circle, but passing forward and from right to left. There is also a forward movement of the left ventricle, above the apex, from left to right. These minor movements must be seen, they cannot well be described; but the facts of importance to be remembered are, that, when the ventricles contract, their bases descend towards the apex, and the latter is not tilted forward so as to give any blow to the thoracic walls, but is pressed downwards, its extremity being directed backwards and from right to left.

"5th. The ventricles contracting, the auricles simultaneously receive blood, and then occupy part of the space within the pericardium previously taken up by the ventricles in their relaxed distended state.

"6th. With each contraction of the ventricles and descent of their bases, the pericardial portions of the aorta and pulmonary artery become suddenly greatly elongated and distended, and, as suddenly, by their elasticity, react upon their contents, becoming of uniform calibre, but visibly distending the sinuses of Valsalva. The *venæ cavæ* are similarly distended during the contraction of the auricles.

"7th. The finger and thumb, spanning the diameter of the ventricles, are perceptibly further separated during the contraction of the ventricles, and approximated during their relaxation.

"8th. The same apparent blow is felt over every part of the ventricles during their contraction, but more forcibly over the centre. The impulse at the ribs is most probably given by the fibres just above the apex.

"9th. The apex is the most fixed part of the heart."

Dr. Halford considers these observations (the more important of which are quoted directly from his work) to establish the compensation theory of Bryant already referred to. He, however, says there is a slight change in the outline of the pericardium at the instant of ventricular contraction, "causing the impulse which has erroneously been attributed to the tilting forward of the apex, whereas it may be caused by any portion of the ventricles in contact with the thorax or diaphragm."

This impulse is the reaction of the force necessary to overcome

the inertia of the column of blood resting upon the aortic valves, and it is well known how greatly it may be increased when disease of the valves adds to this resistance that due to a mechanical obstruction of the flow of the blood.

"We must, then, not forget, in our physical examinations of patients, that any part of the ventricle in contact with the chest walls will give, during contraction, an impulse."

The following extracts contain the results of experiments upon the action of the auriculo-ventricular valves. "The auricles contracting on the blood, the force of their contraction is transmitted by the blood in all directions, separating the flaps of the valves, distending the ventricles, and (the semi-lunar valves being shut down) pressing as much upwards and backwards as downwards and onwards. The force not being sufficient to raise the semilunar valves, is expended in distending the ventricles, and raising and closing the auriculo-ventricular valves."

This "valve forms a perfect septum between the auricle and ventricle as soon as the latter becomes distended, and is kept in this position during the whole ventricular systole by its own proper muscles (musculi papillares), which, by contracting simultaneously with the descent of the base of the ventricle, prevent the eversion of the valve into the auricle."

Part II. is devoted to an investigation of the cause of the first sound of the heart, and a criticism of the experiments and conclusions of previous observers. Dr. Halford demonstrates, most conclusively, that it is entirely owing to the sudden tension of the auriculo-ventricular valves. Space is wanting to even cite the character of his methods of inquiry, but the fact may possess novelty as well as interest to many who read this—that in birds which have the right auriculo-ventricular valve replaced by a muscular ring, the first sound is comparatively feeble; and in reptiles where there are no tendinous valves between the auricles and ventricles, the first sound does not exist.

A careful perusal of Dr. H.'s little treatise will repay any one who has the slightest interest in physiological science. C. F. C.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, AUGUST 9, 1860.

DEATH OF DR. ADDISON.—The decease of this distinguished physician is recorded in the late London journals. He died at Brighton, on Friday, June 29th, within a few months of Drs. Bright and Todd, the death of the latter, it is said, having been the immediate cause of the despondency which continued to the close of his life. We learn from the *Medical Times and Gazette* that he was about 67 years of age, having been born near Newcastle about 1793. He took his degree in Edinburgh, in 1815, and immediately removed to London, where he soon became distinguished for his zeal and industry in various departments of medical science. In 1837, he was appointed physician to Guy's Hospital, and subsequently joined Dr. Bright in the chair of medicine.

It is not necessary to add that, by the death of this eminent physician, the profession has lost one of its brightest ornaments. Although his contributions to medical literature were not numerous, his name will be forever associated with one of the most important discoveries of the time—that of the connection between a certain diseased condition of the supra-renal capsules and a peculiar discoloration of the skin. This disease, called by him *melasma supra-renale*, has, since its recognition in France, been known as *morbis Addisonii*, a name very properly suggested by M. Trousseau.

With regard to the professional character of Dr. Addison, it is said that none ever stood higher. Free from everything like jealousy or ill will against any man, he will long be remembered not less for his highly honorable bearing towards all with whom he came in contact, than for the distinction which he earned in the annals of pathological science.

BOYLSTON PRIZE ESSAYS FOR 1860.—By referring to the advertisement of the Boylston Medical Committee, it will be seen that a premium of ninety dollars was awarded to Dr. John Bell, of New York, for the best dissertation on the question, “How far does the Microscope assist us in Surgical Diagnosis?”

The other premium, of the same value, was awarded to Dr. David W. Cheever, of Boston, for the best dissertation on “The Value and Fallacy of Statistics in the Observation of Disease.”

It will be noticed that the first question above named, although the subject of a successful essay the present year, marked by much ability, has been again proposed for 1862, as it is one of great importance, and worthy of a still further and fuller investigation.

WE much regret that we should have given occasion for the following note from Dr. Thayer. The account of the proceedings at the meeting of the Vermont Medical Society was taken from a paper sent to us as containing, we supposed, an authentic record. It now appears that the statement represented to have been made with regard to Dr. Thayer's extract of *veratrum viride*, was either not made, or if so made, was unauthorized. Without for a moment supposing that any injury can accrue to Dr. T. from this mis-statement, the importance of a clear and faithful record of the doings and sayings of medical societies, properly certified before publication, cannot be too strongly urged.

MESSRS. EDITORS,—We see in your last issue the following statement:—“The agent of Dr. Thayer told Dr. Knight that his preparation [of *veratrum viride*] was made with garget or poke.” We have but one agent. He is an experienced pharmacist and a truthful man. He knows very well that all our fluid extracts are made from legitimate raw material, and he *never made such an absurd statement*. With regard to the fact, our extract of *veratrum viride* is made from American hellebore, *veratrum viride*, sometimes called, according to the Dispensatory, *Indian poke*, *poke root*, while our fluid extract of “garget or poke” is made from the root of *Phytolacca decandra*. An examination of the two samples sent will settle the question.

Respectfully,

Cambridge, August 3d, 1860.

HENRY THAYER & Co.

HONOR TO M. GROUX.—We are glad to learn that at the late commencement at Dartmouth College, the honorary degree of Doctor of Medicine was conferred upon M. Eugene A. Groux, whom our readers

will remember as presenting the anatomical peculiarity, almost unique in character, of a congenital fissure of the sternum.

We are quite sure the profession will agree with us in considering this honor as a well deserved compliment to M. Groux for his devotion to the interests of science in this and other countries, as evinced by his careful study of his own case, and the expense incurred in visiting the various institutions of Europe and the United States.

As an evidence of his disinterestedness, it will be recollected that while in this country he made a will, bequeathing his remains, his instruments and books, for the benefit of the medical profession, in case of his death before leaving our shores—a circumstance which seemed not improbable to many of his friends, from the feebleness and delicacy of his organization, and the condition of his general health.

It is rare that in this country an honorary degree is so worthily bestowed, and it will be especially prized as coming from one of our most distinguished and time-honored colleges.

MEDICAL MEETING AND DINNER.—The Berkshire District Medical Association met as previously advertised, on the 25th ult., at the residence of the President of the Association, Dr. Clarkson T. Collins, of Great Barrington, and was addressed in an able manner by Dr. E. W. Bostwick, of Columbia County, N. Y. Subject of the discourse, Diphtheria—a disease which has prevailed to a considerable extent in Columbia County for the last two years, and which has recently invaded the western border of Berkshire County. After the close of the address, the subject was discussed by Drs. H. H. and Timothy Childs of Pittsfield, Dr. Alexander H. Stevens of New York, Dr. T. K. DeWolf of Chester, Dr. Peck of Sheffield, Dr. Adams of Stockbridge, Dr. Whiting of Lee, Dr. Root of West Stockbridge, and Dr. James Welch of Conn. On motion of Prof. Timothy Childs, it was voted that the thanks of the Society be tendered to the gentleman from Columbia County for his lucid and instructive address.

At half past 2 o'clock, sixty-four persons, including forty-eight physicians, dined at Dr. Collins's Medical Institute, which was opened in Great Barrington in 1853, for the treatment of chronic diseases, and has since been successfully carried on by Dr. C. Speeches were made by many of the more prominent guests, and letters were read from several distinguished gentlemen who were unable to be present. The entertainment is said to have been sumptuous, and the festivities generally seem to have been of unusual interest.

EXTERNAL USE OF CHLOROFORM. *Messrs. Editors,*—I notice in the last number of the JOURNAL, a re-print of a foreign article on this subject. The use there mentioned is by no means new to me, and I supposed was not to others. Some seven years since, I was called out to visit a patient, who, in connection with some uterine disorders, suffered extremely from neuralgic pains. I went feeling myself too ill to give much attention to the case, but finding the pain almost past endurance, I sent to my office for a bottle of chloroform, and applied a sponge saturated with it over the ischiatic plexus, covering it with a napkin. It produced a redness, and, I think, vesication, but I had the pleasure of seeing her in a few moments entirely free from pain, and she remained so for the remainder of that period. I have often

used it since, and generally with success, though not always. I have also been in the habit, for several years, of adding it to anodyne liniments, and have found it efficient in its effects on simple neuralgic pains.

I do not consider the effect due to counter-irritation, since that, with mustard, has often failed, when this has proved successful. Counter-irritants had been freely used in the case I first named. It will be of no use, according to my experience, when the pain depends on active inflammation, except as a counter-irritant; but I think it a valuable agent in simple neuralgia, &c.

J. H. NUTTING, M.D.

Holliston, Mass., August 7th, 1860.

REMARKABLE DEATH.—An investigation took place this week in reference to the death of an unknown female, about 50 years of age, under the subjoined very singular circumstances:—About one o'clock on Saturday afternoon last, a house-painter, at work on the premises 39 Woburn Place, Russell Square, noticed the deceased sitting on the door-step of No. 38, with her head resting upon one hand, and a basket of lace by her side. After the lapse of a quarter of an hour, he went to her, and, finding her pale, unable to speak, and apparently dying, he sought for a policeman. Within half an hour after the poor woman was first noticed to sit on the door-step, she had expired. She was removed to University College Hospital, where a *post-mortem* examination, to ascertain the cause of death, was performed by Mr. Andrews, the resident medical officer, who discovered the cause of death to be from the piercing of a fish-bone through the substance of the heart. He found eight wounds in the diaphragm and pericardium, through which, strange to say, the bone had passed before it reached the heart. On a rigid search, he discovered the blunt end of a fish-bone, one inch and three-quarters in length, as sharp as a needle, protruding through the stomach, piercing the heart. The immediate cause of death was loss of blood. The Coroner having remarked upon the singular nature of the case, the jury returned a verdict of "accidental death."—*Medical Times and Gazette*.

FALSE TEETH IMPACTED IN THE PHARYNX.—At a recent meeting of the Medico-Chirurgical Society of Edinburgh, Mr. Spence showed a portion of a set of false teeth, fixed in the usual way in a gold plate, which had been swallowed by a man during his sleep, and had become impacted in the pharynx. The teeth had been stopped at the front part of the pharynx, opposite the cricoid cartilage, in such a manner that the posterior part of the pharynx was left quite free, and a probang was passed into the œsophagus without detecting the presence of the foreign body. On putting the finger into the pharynx, however, Mr. Spence readily ascertained the situation in which the false teeth had been caught, and succeeded, with some difficulty, in removing them. This case impressed the caution, that false teeth should not be worn during the night, and that the metal plate should be made to cover more of the gums, so as to take a firmer hold of them. It was of importance to remember, in the detection of foreign bodies in the pharynx, not to trust to the probang without careful examination with the finger.—*Edinburgh Medical Journal*.

BONE-SETTERS IN FRANCE.—A child of fifteen months, in the department of Mayenne, lately fell from its sister's arms and injured one of the lower extremi-

ties. A bone-setter was called in, who handled the limb rather roughly, declared the thigh-bone was broken, and that he had set it. He then tied a handkerchief, moistened with soap and water, round it, and promised to return in a fortnight, receiving 13s. for his trouble. The man, however, did not again make his appearance, and a regular practitioner being called in, he found large abscesses, with the fragments of the femur projecting from them when opened. Several months were necessary to obtain union, with considerable shortening. The bone-setter was then sued by the father, and the verdict was as follows:—A fortnight's imprisonment, £8 fine, £40 damages, and the costs of the medical attendance upon the child.—*London Lancet*.

JOHN HUNTER.—At a large meeting of the John Hunter Statue Committee at the Royal College of Surgeons, on the 6th of June, it was decided that the execution of the marble statue of the immortal Hunter should be entrusted to Mr. Henry Weekes, A.R.A., and that when completed it should be placed in the museum of the College. It is the intention of the committee that Sir Joshua Reynolds's portrait of the great original, his *chef d'œuvre*, should be followed as nearly as possible by the sculptor.—*Ibid*.

DR. CARNOCHAN, of New York, is said to be suffering severely, in his right hand and arm, from the absorption of the dropsical effusion of a patient.—An unusual number of cases of typhus fever are at present under treatment in the New York hospitals.

HEALTH OF BOSTON.—The mortality of the city, during the past week, has reached a higher figure than at any time before this season—not being far, however, as will be seen by a reference to the mortality tables, from the average, as corrected to the increased population, for the corresponding week in the preceding ten years. The sudden rise in the mortality rate is mainly due to cholera infantum and dysentery, both of which seem to be rapidly on the increase. Deaths from consumption were also unusually numerous.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, AUGUST 4th, 1860.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	43	66	114
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	50.5	49.7	100.2
Average corrected to increased population, . . . . .	..	..	114.3
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infantum.	Scarlet Fever.	Pneumonia.	Measles.	Smallpox.	Dysentery.
19	23	1	2	0	0	7

METEOROLOGY.

From Observations taken at the Cambridge Observatory.

Mean height of Barometer,	30.031	Highest point of Thermometer,	82°
Highest point of Barometer,	30.234	Lowest point of Thermometer,	57°
Lowest point of Barometer,	29.728	General direction of Wind,	Westerly.
Mean Temperature,	70°·1	Whole am't of Rain in the week	1.786 in.

MARRIED,—At Tipton, Iowa, William E. Dowd, M.D., of Holland, Michigan, to Miss Helen M. Hammond, of Tipton.

DIED,—In Ellsworth, Me., Dr. Asa McAllister, aged 54.

Deaths in Boston for the week ending Saturday noon, August 4th, 114. Males, 48—Females, 66.—Abscess (of hip), 1—inflammation of the bowels, 2—ulceration of the bowels, 2—congestion of the brain, 1—disease of the brain, 2—bronchitis, 1—cancer (of stomach), 1—cholera infantum, 23—cholera morbus, 4—consumption, 19—convulsions, 2—cyanosis, 1—debility, 3—diarrhoea, 1—diphtheria, 1—infantile diseases, 2—dropsy of the brain, 3—drowned, 3—dysentery, 7—epilepsy, 1—scarlet fever, 1—disease of the heart, 1—malformation of the heart, 1—hæmorrhage, 1—disease of the hip, 1—intemperance, 2—disease of the kidneys, 1—congestion of the lungs, 1—disease of the lungs, 3—inflammation of the lungs, 2—marasmus, 4—old age, 3—paralysis, 3—disease of the stomach, 1—strangulation (internal), 1—suicide, 1—tetanus, 1—unknown, 6.

Under 5 years, 69—between 5 and 20 years, 10—between 20 and 40 years, 25—between 40 and 60 years, 8—above 60 years, 11. Born in the United States, 86—Ireland, 22—other places, 6.

THE

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No. 3.

DIPHTHERIA AS OCCURRING IN ANNAPOLIS CO., NOVA SCOTIA.

[Communicated for the Boston Medical and Surgical Journal.]

BY LEANDER R. MORSE, M.D.

THE present epidemic "diphtheria" is neither more nor less than the old "putrid sore throat," but now spreading, both in Europe and America, in a more decidedly *epidemic form* than usual.

Formerly, when prevailing as an epidemic, it usually occurred in conjunction with scarlatina, especially in children, often attacking, at the same time, adults without scarlatina. Of late, it seems more independent of that disease, and may recur again and again in the same subject, after an interval of some months or years; at least, I have witnessed it three times in the same adult, within a few years—twice in a sporadic form, and very recently in the present epidemic.

During 1818 and the two subsequent years, this disease prevailed epidemically at "Tours" (France), and after the *post-mortem* inspection of many fatal cases, was written upon by M. Bretonneau, a physician of that city, and named by him "diphtherite," from its throwing out an incrustation, or false membrane, upon the surface, resembling the inner or rough side of skins—modernized into "diphtheria."

The great merit of M. Bretonneau's work, was in convincing the profession that ulceration, or disintegration of surface, was *seldom*, he says, "*never* observable, except occasionally in the slightest possible degree."

This disease being a compound of sore throat and typhoid fever, of course the symptoms will vary somewhat, according to the *type* of the disease. Hence it has been distinguished by the general terms—*acute* and *malignant*. It may be ushered in with the symptoms of ordinary sore throat, with more or less fever (and, of course, the less the fever, the milder and more amenable to treatment), and generally with swelling and tenderness of the glands

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of the neck, when the pharynx, tonsils and soft palate present a *deep red* and often a *glazed* appearance. After twenty-four hours or so, small spots, or patches of firmly adherent lymph, may be seen, generally on the tonsils, or often commencing between them and the anterior pillar of the fauces. The tonsils are not usually much enlarged, except when constitutionally so. The deposit, whether commencing in small points, or in a thin *flaky* patch, sometimes rapidly spreads over the tonsils, velum, uvula, and pharynx, &c., and becomes thickened, tenacious, and firmly adherent—called the *concreta* form—resembling “tripe” long macerated in hot water, or the rough side of thin “sole leather,” though of greyish, or yellowish-white color. In the morning, before being swabbed out, the surface is often dusky, and sometimes horribly foetid.

The other form of deposit, called the “pultaceous,” is looser in texture, less cohesive, and, I think, less inclined to spread; though, as far as my experience goes, attended with a more rapid pulse, and fever more decidedly typhoidal. This, too, is also the more frequent form of the complaint. The pulse in children is sometimes 140, even on a first visit; and the tongue generally much coated, though sometimes dry and glazed. The nose is often affected with an acrid discharge; and a deposit or plugging, as in *malignant scarlatina*, often occurs, so as to necessitate an *open mouth* for maintaining respiration.

In some rare cases, as in weakly subjects, after fatigue followed by sudden cold, the surface of the throat suddenly assumes a dark and gangrenous appearance, accompanied by utter prostration; this, however, is only an exceptional appearance. The tendency, in all cases, is to spread both forwards and backwards; yet so long as the limits are visible, and especially if there be neither *hoarseness*, *loss of voice*, nor *croupy cough*, there exists a good prospect of recovery. When, however, in addition to these symptoms, *croupy breathing* (long, labored inspiration) supervenes, the danger becomes imminent—though, even then, recovery will sometimes take place.

CAUSES.—“Atmospheric influence,” operating more certainly with cold as an “exciting cause.” Also “contagion,” especially under similar circumstances.

The treatment naturally divides itself into the “local” and “constitutional.” If seen early, and before deposit is observable, a solution of nitrate of silver (3 i. or 3 ij. ad 3 i.) may be applied to all the reddened parts by means of a large camel’s hair brush; but if deposit were decided, the solid caustic is to be preferred, together with the frequent use of a gargle of strong salt and water, with the addition of pepper vinegar, or common vinegar in children. Also the strong hydrochloric acid, diluted with four to eight parts of water, may be applied occasionally, by means of a bit of fine sponge on the end of a stick. This lotion is more effectual than the salt gargle alone; and, by its use, flakes of false membrane are

often removed. In bad cases, I have often used the acid and honey in equal parts, as recommended by M. Bretonneau, with good effect. When the parts begin to clear off, the strength of the washes should be reduced.

GENERAL TREATMENT.—As the digestive organs are generally disturbed, it is often advisable to commence with an emetic, ipecac to be preferred; afterwards a dose of calomel and rhubarb, or rhubarb and senna, may be given. Should the appetite be very defective, and heat not much above the natural state, a little wine is necessary to rally the digestive function, as also beef-tea, broths, quinine, &c. In short, the treatment should be much as in typhoid fever (but without the sudorifics, the skin not being arid as in that disease), maintaining heat and countenance at a healthy standard—only bearing in mind that as the disease runs a more rapid course than fever, it may require stimulants earlier. Whatever may be the requirements of large towns, I feel bound to object, in the most decided terms, to the indiscriminate use of the *very large* quantities of brandy often resorted to in this disease; by which a temperate patient is flushed, like a bloated drinker, and latent or insidious inflammation, usually the immediate cause of death, is masked, or not recognized. Should, however, the disease spread to the larynx or trachea, or inflammation thereof be excited by a new cold during its progress, all stimulus must be withdrawn, and small doses of calomel and antimony be substituted, until the acute symptoms be overcome—after which time, *possibly*, a solution of carbonate of ammonia or other stimulating expectorants may be again advisable.

P. S.—For the use of solution of nitrate of silver in “diphtheria,” especially in the “croupy symptoms” thence resulting, the profession is indebted to Dr. W. McKenzie, the very celebrated oculist of Glasgow, so long ago as 1825.

August 2d, 1860.

MEDICAL ADVANTAGES OF VIENNA FOR AMERICAN STUDENTS.

[We have been permitted to publish the following extracts from a letter recently written from Vienna, by Dr. Hasket Derby, of this city. It certainly well illustrates, at least in one respect, the advantages claimed for that over other European cities, as the place for American students to complete their studies.—EDS.]

“I would give you,” says Dr. Derby, “a full account of the facilities for study here in Vienna, but you undoubtedly read Dr. Oliver’s letter, published in the Boston Medical and Surgical Journal some three years ago. This gave a very full description of the different courses and their advantages. To show you, however, how under this admirable system one can fill up his time with a single branch, I will give you a brief account of the facilities af-

forded for the study of the eye, that being the subject on which I have been working for the past six months.

"There are two professors in this branch—Arlt and Jaeger. The former is the associate of Graefe in the management of the "Archives of Ophthalmology," and the latter is well known through his extended researches with the ophthalmoscope. From 7 to 8, we follow his visit. From 8 to 9, a few of us have a private course on the theory and practice of eye diseases, with the chief assistant of Professor Arlt. From 9 to 10, we have Jaeger's course on the ophthalmoscope, two days in the week being theoretical, and the others devoted to the examination of cases, principally with the upright image. From 10 to 11, Arlt makes his visit, and lectures on the cases in his wards, performing, at the same time, any operations which may be necessary. In this, as in other departments, each student is obliged to have charge of a case, keep a full record of it, and be prepared at all times to be examined publicly on the nature and progress of the disease. Should he have neglected to comply with this condition, his papers are refused signature at the end of the term.

"From 11 to 12, Arlt holds his "ambulatorium," prescribing for the out-door patients, who come in great numbers; and from half past 12 to half past 1, he gives his private operation course to physicians only. His wide-spread renown as a skilful operator causes this course to be much sought for, and the participants are principally foreign physicians. We have every day a fresh head and a sufficient quantity of eyes from the slaughter-houses. He supervises personally all the operations, exercises each member of the class thoroughly in them, and devotes a portion of each week to their theory and application.

"In the afternoon we continue our theoretical course, make the visit with the assistant, and have a second course on the practical use of the ophthalmoscope, using this time the inverted image. Besides all this, by being a little intimate with the assistants, we have at all times access to the wards, and a good many opportunities to remove foreign bodies from the eye, apply nitrate of silver, &c.

"Thus you see the day is pretty well taken up with this one subject. Had I paid the least attention to it before I left home, I should be able to inform you in what points the practice here differs from our own. Extraction and discission are the operations we see most performed for cataract, couching being almost never employed. Extraction, especially, is a very favorite and frequent operation. Bowman, of London, is thought very highly of, and his operation of slitting up the lachrymal canal and sounding the tear sac, in cases of blennorrhœa of the latter, is always used. I have not seen a tear sac opened in the old-fashioned way since I have been here.

"Graefe's operation of artificial pupil for glaucoma is the common treatment of that disease, and I have in six months seen some most remarkable and brilliant results. Had I time and space, I would like to describe to you the operations for trichiasis; they are exceedingly ingenious and practical, leaving hardly any trace behind them."

CASE OF TUBERCLE OF THE BRAIN IN AN ADULT.

THE infrequency of tubercular disease involving the brain, except in young subjects, renders the case here recorded a remarkable one. Cruveilhier never saw an example of tubercle in the brain at the age in which it occurred in this case. Jones appears to have met with one instance out of 117 cases. Abercrombie gives one case at thirty-four years of age. In children, on the contrary, tubercle in the brain is a very frequent affection.

The situation of the tumor is another feature of interest. In children, tubercles are met with in the nervous substance in different localities, most frequently, perhaps, in the cerebellum. But in this instance the tumor lay beneath the brain, and was unconnected with its substance; it exercised considerable pressure on the brain, but evidently originated without it. It was equally obvious that it did not spring from the dura mater which lay beneath it, and from which it could readily be separated.

From a careful examination of the tumor and the surrounding parts, the author thinks it was developed in the substance of the ganglion of the fifth pair of nerves. Dr. Bright and others regard the gray neurines as the favorite nidus of cerebral tubercle, and the gray neurine of the ganglion may have been, in this instance, the seat of the deposit, which, as it enlarged, affected parts more remotely situated.

That the ganglion of the fifth nerve should be involved in a tumor of large size without intense suffering being the result, is not what we would, *à priori*, have expected; but the degree of pain produced by a tumor would seem to depend not only on the position of the tumor among the parts on which it exercises pressure, but also on the *nature of the morbid growth itself*.

Cancerous tumors in the cerebellum excite, as a general rule, much pain. Scrofulous tumors in the same situation are as generally painless. A scirrhus tumor, involving the cassarian ganglion, gives rise to *tic douloureux* in its most agonizing and irremediable form. A scrofulous tumor of the same size, in the same locality, may, as this case illustrates, give rise to very little pain, and to none of a specially neuralgic nature.

The protrusion of the eyeball in the case in question is a symptom difficult to explain satisfactorily. The author is inclined to think that it may be accounted for by the obstacle presented by

the tumor to the return of the venous blood from within the orbit. The cavernous sinus was pressed upon, and consequently the ophthalmic vein and its tributaries were distended, as indeed the turgid condition of the veins of the upper eyelid indicated during life. The eyeball is so delicately poised in the orbit, between its antagonistic muscles, the obliqui and recti, that very slight pressure would disturb the balance, and cause protrusion. On the other hand, it may possibly have been the case that the nervous influence of both the third and sixth nerves was impaired, so that the power of all the recti and of the inferior oblique was diminished, in which case the undiminished and unopposed power of the superior oblique muscle would tend to draw the eyeball forwards. It is quite certain, however, that the characteristic symptoms of paralysis of the third pair of nerves *alone* did not exist, neither was there complete paralysis of the recti muscles, for the patient throughout retained the power of directing the eyeball in different directions. Whatever be the true explanation of this symptom, it may be worth recording that exophthalmia did, in this instance, exist, as a symptom of inter-cranial tumor, and that there was no prolongation or extension of the tumor into the orbit which could explain its occurrence.

CASE.—Patrick D——, a laborer, æt. 33, and a strong, healthy-looking man, applied on several occasions at the Whitworth Hospital, complaining of uneasy sensations, and sometimes of pain in his head. Occasionally, he had vertigo and impaired sensation in his hands and fingers. Blisters to the temples and behind the ears, with purgatives, generally gave him relief. On the 17th of March last, feeling much worse, he asked to be admitted into the hospital, and was accordingly taken into No. 1 ward. The man's appearance was greatly changed, he was much thinner, and had now a dull heavy look. He complained much of pain in his head and of weakness of his limbs. He answered questions very slowly, but always correctly. A few days subsequently he had become more listless; he had to be spoken to loudly, and a question had to be repeated several times before he comprehended what had been said. He walked with a staggering, uncertain gait, like that of one inebriated, and complained less than he had done some days previously. Having been freely leeches and mercurialized, a slight improvement was observed, but which quickly passed away, and a fortnight after admission his condition was altogether very remarkable. A lethargy more profound had crept over him; he slept much by day as well as by night. He never made any complaint, or mentioned any of his original symptoms, and remained always in bed. He now ceased to ask for his food, nor did he seem to feel hungry. When fed with a spoon, he swallowed the food and seemed to like it; but when food was placed in his hand, he never attempted to eat it. There was no paralysis, but the muscular power generally was impaired. He used both hands

freely, and was able to walk. When taken out of bed, he would stand wherever he was placed, and only walked when he was led or pushed forwards. The pulse was rather slower than usual; the respiratory motions markedly slow, and he sighed often and deeply. At this period the left eye was observed to become unnaturally prominent—the advance of the globe, at first slight, in a few days became more decided; the upper eyelid had an elongated appearance, and was of a darker color, while the vessels of the lid became large and turgid. No tumor could be felt on pressing through the lid, and the motions of the eyeball were unaffected. The iris was not paralyzed, the pupil contracted sluggishly, but this was equally the case on the right side. No material change occurred from this period; the patient seemed to become, if possible, less conscious of what went on about him, and at last nothing more than monosyllables could be extorted from him in reply to repeated questions. Both urine and fæces were now passed involuntarily. How long this patient might have lived in this condition, had no other disease supervened, it is difficult to conjecture.

The functions of relation were, no doubt, in abeyance; he had ceased to hold any communion with the world around by means of speech or locomotion. He was like a hibernating animal, with this difference, that he retained the undiminished power of evolving animal heat; but his condition more strikingly resembled that of the pigeons, whose central hemispheres Flourens had removed. Like them, he was plunged into a profound lethargy.

Capable, indeed, of performing automatic movements, but not capable of executing any connected or intellectual action, nevertheless the functions of organic life were unaffected, his wants were attended to, he was regularly fed, and nutrition was maintained.

However, on the 14th of April, a diphtheritic exudation appeared on the fauces, the breathing became difficult, and swallowing impossible, and death ensued on the 17th of April.

Post-mortem Examination.—A lobulated tumor, as large as a pigeon's egg, occupied the middle fossa of the base of the skull on the left side, which it completely filled, extending inwards to the side of the body of the sphenoid bone.

The cavernous sinus was encroached upon and compressed, and the nerves in the outer wall of the sinus were more or less involved in the tumor. The third pair, however, could be dissected off its upper surface.

The casserian ganglion was involved in the tumor, its filaments spread out, and not separable from it. The tumor, which on the surface was vascular, and of a grayish color, presented all the appearances of a scrofulous tubercle when cut into; part of it consisted of yellow crude matter, imperfectly laminated, the rest had broken into a semi-fluid mass, in which pus could be easily distin-

guished. The dura mater beneath it was unaffected, the middle lobe of the brain, which lay on the upper surface of the tumor, was deeply indented by it, and still more deeply softened and disintegrated.

The rest of the brain was healthy; no trace of tubercular development could be found in any other organ; even the lungs were free from the smallest deposit.—*Dublin Hospital Gazette*, May, 1860.

ON THE PHYSIOLOGY OF DIGESTION.

PROF. BUSCH, of Bonn, has had the opportunity of making experiments on digestion upon a woman who had been tossed by a bull, and presented, in consequence of the accident, a fistulous opening communicating with the small intestines. The fistula was so complete that the bowel was divided into two perfectly distinct halves. The upper portion consisted of the stomach, the duodenum, and of a probably minute piece of small intestine; the lower portion was composed of the remaining part of the small intestine, the colon, and rectum. Through the upper half, the food introduced into the stomach, as well as the digestive fluids of the latter organ, the liver and the pancreas, escaped, no part of them finding their way into the lower half. This state of things was therefore favorable to the study of the action of the stomach, of the biliary and pancreatic secretions, and also of intestinal secretions independently of the liquids just named.

One of the first effects of the pathological state of this woman was a considerable loss of flesh, as observed when she came into the hospital, six weeks after the accident. Her appetite was, however, insatiable, though she was as weak as those animals in whom artificial fistulæ are made. She was also very drowsy and cold; but this temperature was merely objective, for a thermometer introduced into the intestine marked a normal heat. All these symptoms disappeared when the patient recovered a little strength, in consequence of a generous diet.

She used to swallow an enormous quantity of food without feeling satisfied; but by thus eating largely she felt better, though still hungry. When the stomach was empty she felt ill. The woman was so thin that the coils of intestines could be seen through the parietes of the abdomen; and it was observed that their peristaltic movements were as energetic as those of that portion of the intestine situated above the fistula and open to view.

As the intestinal secretion or juice was perfectly pure and unmixed with any chyme, which latter all escaped by the fistula, a good opportunity was offered for studying the nature of that juice. Prof. Busch found the quantity always small, and tried its effects upon protein compounds, starch and cane-sugar, these being the

first experiments of the kind ever made. The patient was at the same time fed by the introduction into the lower part of the intestine, through the fistula, of beef-tea, beer, soups with flour, meat, hard-boiled eggs, &c. Soon after these injections were resorted to, she had numerous stools, a circumstance which had not been observed since the accident. The evacuations had a well-marked smell of putrefaction, without any undigested portions of meat or hard-boiled eggs being noticed in them; this being a clear proof that the intestinal juice acted as a solvent upon the food passing through the canal.

M. Busch used to wrap the various substances introduced in a piece of muslin, after having carefully weighed them, in order to observe the action of the intestinal juice. He noticed that it was principally upon starch that this juice exerted an energetic solvent power.

An interesting point was to find out what would become of fatty matter without the assistance of bile or pancreatic juice. According to expectation, fatty substances passed without being absorbed, or at least but a very small portion of them disappeared.

M. Busch also examined the state of the substances which escaped by the upper portion, namely, those which had been subjected to the action of saliva, the gastric juice, bile and the pancreatic juice. A very extraordinary fact observed was, the rapidity with which the alimentary substances escaped. In from fifteen to thirty minutes after the ingestion of the food by the mouth, it was observed to escape by the fistula; hard-boiled eggs appeared in from twenty to twenty-six and thirty-five minutes; cabbage took from fifteen to nineteen minutes; meat from twenty-two to thirty minutes; potatoes fifteen minutes. When the meal was plentiful, complete digestion required from three to four minutes (?).

The substances which escaped by the upper end of the divided canal seemed at first sight to have undergone but little change; they were, however, considerably softened, and the meat presented both longitudinal and transverse cracks or slits. M. Busch thinks that the fluid in which these substances were suspended contained no longer any saliva.

We add a few of the propositions which the author considers as proved by the experiments above enumerated:

1. The peristaltic movements of the intestines are as vigorous when the bowels are covered by skin as when they are exposed to the air; they withstand the pressure of a column of water two feet high.

2. The intestinal tube has periods of rest and motion.

3. The intestinal juice is secreted in small quantity; its reaction is always alkaline; and it contains, on an average, 5.47 per cent. of solid matter.

4. It decomposes starch and protein compounds.

5. It changes starch into grape sugar.

6. It decomposes protein compounds with the phenomena of putrefaction.

7. It does not change cane-sugar into grape-sugar.

8. Cane-sugar, when wholly absorbed, does not re-appear in the urine.

9. Fat which has not been brought in contact with the bile or pancreatic juice, is either not absorbed, or, if so, in very small quantities.

10. The first portions of the food introduced into the stomach reach the first third of the small intestine, on an average, in from fifteen to thirty minutes.

11. Cane-sugar held in solution disappears almost entirely at the beginning of the intestinal canal; any such cane-sugar which reaches the small intestine is changed into grape-sugar.

12. Unboiled white-of-egg is absorbed in the stomach, or the first part of the intestine; the portion which goes beyond has not undergone any change.

13. Gum is not changed into sugar; it passes into the intestines without alteration.

14. Gelatine becomes dissolved, and loses the faculty of coagulation.

15. Traces of caseine in solution are found in the intestine after the ingestion of milk.

16. Fat forms an emulsion with the fluids which find their way into the small intestine, when these fluids have an alkaline reaction; the emulsion is incomplete when they are acid.

17. The mixture of juices in the small intestine has a digestive action on the protein compounds.

18. The minimum of the digestive juices, which reach the upper part of the small intestine in twenty-four hours, weighs more than one-seventeenth part of the whole body.—*Archiv. für Path. Heilk. and Gazette Médicale de Paris.*

INVESTIGATIONS CONCERNING HYDROPHOBIA.

FROM a series of returns made upon this subject, from different departments in France, during several years, and epitomized by Dr. Tardieu, in the *Annales d'Hygiène Publique*, we glean some interesting information upon the following points:—

I. *The Species of Animal by which the Hydrophobia was communicated.*—Out of a total of 228 cases in which reference was made to this point, 188 were stated to have been produced by the bite of a dog, 13 by that of a cat, 26 of a wolf, and 1 by the bite of a fox. In two cases in which the bite of a cat produced the disease, one animal is reported to have become rabid in consequence of an extensive burn, another owing to its having been robbed of its young. These cases are of considerable interest, as they tend

to resolve the still doubtful question of the spontaneous development of hydrophobia in other species of animals than the canine.

II. *The season of the year at which this disorder is most frequently developed.*—This circumstance was noted in 181 cases, 110 of which occurred during the hot seasons of the year, 71 only during the cold. There is, doubtless, a marked difference in favor of the months in which the temperature is most elevated, but it does not remain a less constant fact that no season is really opposed to the development of hydrophobia, or can render its effects less formidable.

III. *The average number of persons who escaped the malady after being bitten.*—On this point we have the records of 198 cases of persons who were bitten, in many instances by the same animal; of these, 112 were subsequently seized with hydrophobia, whilst the remaining 86 experienced no ill effects. We need scarcely remark that numerous adventitious circumstances, such as the interposition of an article of clothing to which the saliva of the rabid animal might adhere, the state of the patient's mind or health after the injury, &c., would considerably influence the results in this particular.

IV. *The length of the stage of Incubation.*—In a large majority of cases this was not more than a few weeks. Out of 147 cases referred to, the period of incubation was under a month in 26, more than a month but under three months in 93 cases, whilst in the remainder the length of time occupied was from six to twelve months. The incubatory period appeared shorter in very young persons than at any other age.

V. *The length of time between the development of the disease and its fatal Termination.*—On this point the statistics collected corroborate too fully the preconceived ideas, as to the rapid progress of the disorder. Out of 161 cases death put an end, within a week, to the horrible sufferings of the patients in 158, more than one half of that number dying within four days, even, from the time at which the malady first manifested itself.

VI. *The relative effect of the means employed to prevent the development of Hydrophobia.*—Upon this all-important portion of the subject Dr. Tardieu observes that the fact cannot be too strongly insisted upon, that the only hopes of security from the fatal effects of this dreadful disease consist in immediate cauterization with the red-hot iron, and that every other method only compromises the future safety of the patient by the irreparable loss of the only moments during which the preventive treatment is applicable.

VII.—*Curative treatment of Hydrophobia when it has become developed.*—Dr. Tardieu makes the disheartening statement that of all the remedies which have as yet been suggested, chloroform included, for the treatment of hydrophobia when fully developed, he

has found none to have been attended with sufficiently promising results to enable him definitely to say that it will effect a cure.—*London Medical Review.*

GLUCOSURIA INDUCED BY THE PRESSURE OF A CLOT ON THE
FOURTH VENTRICLE AND MEDULLA OBLONGATA;
FATAL RESULT.

AT UNIVERSITY COLLEGE HOSPITAL, UNDER THE CARE OF Dr. PARKES.

THE production of sugar in the urine by the beautiful experiment of Bernard, of puncturing the floor of the fourth ventricle, has led pathologists to look for the same phenomenon when lesions have occurred in any way involving that particular part of the brain. We have the opportunity of placing before our readers a good and well-marked example of the kind, and one of an extremely rare and interesting nature. We will commence, however, by stating that the urine becomes highly saccharine in coma, and that sugar can also be produced in animals which are rendered comatose. We have no doubt that a similar condition of the urine is present during the stertor of apoplexy. It has been proved that the medulla oblongata exerts a special influence on the glucogenic function, and, as a matter of course, direct pressure upon it, or upon parts indirectly connected with or originating from it, like some of its nerves, gives rise to the same peculiarity. Mere irritation of the floor of the fourth ventricle, without puncture, will produce glucosuria; pressure upon the same part will likewise induce it. We are therefore prepared to understand how the urine in the following case, on being examined after death, was discovered to contain sugar.

Dr. Pavy has found that the great sympathetic, as well as the medulla oblongata, plays an important part in the production of sugar; for if some of the large filaments of this nerve lying close to the vertebral artery are divided, the urine will become charged with sugar in twenty minutes. It is produced in a still more marked and rapid manner, however, when the superior cervical ganglion is punctured or removed.

The prominent feature worthy of note in Dr. Parkes's patient was the encircling of the medulla oblongata by a clot of blood extending into the substance of the pons, and exercising considerable pressure on the fourth ventricle and its contiguous nerves. The coma produced under such circumstances would necessarily prove fatal, and the urine become saccharine, no doubt at the time or very shortly after the hæmorrhage commenced.

In regard to the question appended to the report of this case, we may observe that, if sugar is generated in coma, whether resulting from poison or from hæmorrhagic pressure, its presence in

the urine would afford no help in distinguishing between the two varieties. This is a point, however, well worthy of further investigation.

For the notes of the case, briefly taken, we are indebted to Mr. Wm. Murray, physician's assistant.

A man, who was found lying in the street, was brought to the hospital in a perfectly unconscious state, a sudden fall being the only point ascertained as to his previous condition or present attack. The case well illustrated that form of coma in which the diagnosis between cerebral pressure and narcotic poisoning is next to impossible. Thus there were no marks of external violence, no distinct odor of spirit, livid congestion of the head and neck, and complete loss of consciousness. There was no evident hemiplegia, nor deviation from symmetry of features; the respiration was slow, stertorous, and almost wholly diaphragmatic; the pulse slow and rather weak; pupils contracted equally. Gradual increase in the difficulty of respiration went on, and death ensued from asphyxia.

The autopsy disclosed congestion of the meningeal vessels, but nothing abnormal in the brain substance; no excess of fluid was present in the ventricles; but at the base of the brain a clot was found encircling the medulla oblongata, and extending upwards into the substance of the pons Varolii, which, from its situation, as seen at the time, must have caused considerable pressure on the fourth ventricle and the course of the pneumogastric nerves; the lungs were congested, otherwise they were healthy; the heart very large, weighing twenty-three ounces, from enormous hypertrophy of the left ventricle, and its wall an inch and a half in thickness; the aorta diminished in diameter by a large calcified patch, two inches from the valve; the kidneys were healthy, of notably firm consistence, but showing no excess of intertubular tissue on microscopic examination. The bladder was distended with urine, which was carefully examined by Dr. Harley, and found to contain sugar; the per-centage was not estimated, but it was sufficient to reduce the oxide of copper freely, and to give, when the urine was boiled with potash alone, a distinct brown color. The presence of sugar in the urine is a fact of considerable importance when it is remembered that by injuring the fourth ventricle in animals artificial diabetes can be induced.

It might be asked if, in a case like the preceding, the diagnosis could not be assisted by finding sugar in the urine of a patient who was known to be free from diabetes, or any influence which might cause the urine to contain sugar?—*London Lancet.*

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

JULY 9th.—*Latent Pleurisy.* Dr. FIFIELD remarked that this case* well showed the extraordinary latency that pleurisy sometimes assumes.

The combination of phenomena observed is interesting, as setting at nought the rules given by authorities for the differential diagnosis between pneumonia, pleurisy with effusion, and phthisis with solidification of the whole lung, where bronchial or tubular respiration is present. Barth and Roger, in their *Traité Pratique d'Auscultation*, devote sixteen pages to the pathological signification of bronchial respiration. They give the following list of diseases in which it has been heard: inflammatory hepatization; considerable agglomeration of tubercular matter; extensive pulmonary apoplexy; certain cases of œdema of the lung; cancer; melanosis; aneurism of the aorta; hydro-pericarditis, without effusion into the pleura, or pneumonia; uniform dilatation of the bronchi. To these may be added, cases of simple hydro-thorax complicating disease of the heart, as observed by Dr. J. B. S. Jackson. So far as regards the distinction between pneumonia, phthisis and pleurisy with effusion, the case above narrated seems to contradict almost every one of the distinguishing symptoms pointed out by them as diagnostic. Thus these authors declare "that the bronchial respiration in pleurisy with effusion, is of little intensity, far from the ear, not distinct, not tubular, the reverse being true of pneumonia." Yet in the case recorded, and in many others of large serous effusion, observed by Dr. F., the bronchial respiration could not be stronger. In one case, he refrained from puncturing the chest because the bronchial respiration was so loud and seemed so near. Yet at the autopsy four quarts of serous fluid were bailed out of the pleural cavity. This co-existence of strong bronchial respiration with large serous effusion without inflammation, was first discovered by Dr. J. B. S. Jackson, and the name ægophonic respiration given to it by Dr. James Jackson, because it was heard in cases where ægophony likewise existed. This fact, stated many years ago by that faithful and respected teacher, Dr. J. B. S. Jackson, had made a profound impression on his mind, and each succeeding year has borne witness to the truth of his observations. A re-publication of his cases would be a boon to old pupils.

Barth and Roger say that the bronchial breathing in pneumonia is mixed with crepitus—in pleurisy it is unmixed. In the present case, fine crepitus was distinct in front at base. Again, they announce that in the former, bronchial respiration does not change its place by change of posture, the reverse in pleurisy. In our case, the respiration was unchanged by posture. They also say that in pneumonia bronchial respiration is strongest where percussion shows the greatest dullness, bearing strict relation to each other; that is, in whatever part of the chest dullness is found, there also bronchial respiration is heard. In pleurisy with effusion, on the contrary, where dullness is most marked, bronchial respiration is faintest. This is not true of the present

* See the preceding number, page 40.

case, nor did Dr. F. think it would be allowed to have been so by those who have observed similar ones. They say that, "in pleurisy it is rarely heard at the summit of the lung, more rarely at the sides, at the base and anterior regions." In this case, as well as in some others Dr. F. remembered, it was distinctly heard throughout the affected side of the chest. It is mentioned by our authors, and Dr. F. would particularly call the attention of observers to it, that in effusion, the bronchial or tubular sound is most distinctly heard in expiration; in pneumonia it is equally evident in inspiration or expiration. Dr. F. regretted not having paid attention to this point. They also say that it is produced in effusion by forced breathing, whereas in pneumonia it is heard when the patient is breathing in the most ordinary manner. It will be remembered that in this case bronchial respiration could be obtained beneath the left clavicle by forced respiration, after the apparent absorption of the liquid. Barth and Roger tell us that the crepitus redux follows bronchial respiration in pneumonia, when recovery takes place; silence of the respiratory murmur, that of pleurisy. Yet Mills exhibited crepitus redux. They teach us, that "if in certain cases of suspected pleurisy we find bronchial respiration throughout the lung, we should suspect pneumonia or tubercular solidification." Our lad had strong bronchial respiration everywhere in the affected side, yet the result of the case does not point to phthisis. He does not cough, and gains flesh. Bronchial respiration has not yet received all the attention it deserves from pathological anatomists. We need a numerical series to establish its most frequent cause and signification; whether it would be found in the majority to depend on solidification of lung, or on the acoustic properties of liquids. In children, it seems to be acknowledged that bronchial respiration points rather to pleurisy than to pneumonia. Barth and Roger say "that in an acute case in a child it indicates a pleurisy as well as a pneumonia." It has been Dr. F.'s fortune to have frequently heard bronchial respiration in pleurisy; and when, in a case of pneumonia as marked by the expectoration, &c., he hears it, he is as apt to attribute it to the occurrence of effusion, as to a hepatization, in fact, to a pleuro-pneumonia. In these latter days the revelations of the stethoscope do not command such unbounded faith as formerly. M. Trousseau doubts whether any body has heard the friction sound in pleurisy. The most lending in auscultation would hail the sight of rusty sputa, as tending to establish a stronger diagnosis than could be given by the stethoscope alone in a case of pneumonia. One word about stethoscopes. Canman's double one certainly brings out sounds with surprising power, and in phthisis reveals morbid sounds before they are audible to the unassisted ear, yet its story is to be received with a grain of salt. Dr. F. questions it closely in regard to crepitus, if fine; the motion of the tubes against the wax of the ears is apt to deceive. Also when ausculting near the division of the trachea into the bronchi in front, or over the shoulders behind, the listener is often startled to hear slight cavernous respiration, until reflection on the power of the instrument employed convinces him that it is only the continuation of the tracheal sound. Otherwise it might induce him to offer an unfounded prognosis.

JULY 23d.—*Fracture of the Ribs and Pelvis.* Dr. TOWNSEND showed the specimen, which came from a man 36 years of age, a painter by trade, robust and healthy, though intemperate. He fell from the roof

of the barracks, at the Charlestown Navy Yard, striking on his right side. The right leg was shortened, the foot inverted, the toes resting on the instep of the opposite foot, the knee semi-flexed. He was unable to move the limb, from pain. Being etherized, the thigh could be flexed at a right angle with the abdomen, the movement causing crepitus in the region of the head of the femur. The limb was drawn down to within half an inch of the length of the other, and Desault's splint was applied. Delirium tremens came on the next morning, and he died in forty-eight hours after the accident.

At the autopsy, it was found that there was a fracture of the ribs on the right side, extending from the fifth to the tenth, inclusive. The liver exhibited a number of superficial lacerations, on the upper and lower surfaces, the deepest being near the fundus of the gall-bladder. The tissues of the pelvis contained much blood. The head of the thigh-bone projected a short distance beyond the edge of the great sacro ischiatic notch, having followed the groove left by the displacement of a fractured portion of the acetabulum and bone behind, which was an inch and a half square, and three fourths of an inch in thickness. Fractures also extended between the socket and the ileum, and the socket and the obturator foramen.

Dr. GAY said he saw the patient when he was first brought into the Hospital. He was inclined to think the dislocation was produced there, during the examination.

Dr. H. J. BIGELOW remarked that the case came near being one of simple fracture of the edge of the socket, an exceedingly rare accident, and one which he never saw. What is usually taken for it, is, in fact, an impacted fracture of the head of the femur. In this case, along with the fracture of the socket, there is also fracture of the pelvis, causing a groove, in which the head of the femur was impacted, scoring the latter deeply.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, AUGUST 16, 1860.

MAINE MEDICAL SCHOOL.—There appeared in the *JOURNAL*, a week or two since, a communication signed "Hufeland," containing a resolution of the Maine Medical Association, expressive of the determination of that body not to countenance the act by which a grant of land was received by the Maine Medical School, on conditions at once tending to lower the standard of medical education and derogatory to the profession. The prompt and decided action on the part of the State Society evinces a high and honorable feeling among its members, which is certainly most creditable.

It seems, however, from the following communication, which we take much pleasure in laying before our readers, that the professors of the School have not only given assurances that they shall never depart from the principles which have hitherto guided them in the management of the Institution under their charge, but that it is the intention of the Trustees to relieve it, as soon as possible, from the embarrassment necessarily occasioned by the singular conditions attach-

ed to the legislative grant : a course which might have been anticipated from the first, when we consider the high professional and social position of many of those who compose the board of trustees, and which would have undoubtedly been pursued in the outset, had the exact force and bearing of the conditions been fully understood.

Messrs. Editors,—In your Journal of 26th of July, is a communication containing a copy of a resolution passed at a late meeting of the Maine Medical Association, relating to the Medical School of Maine, with comments by "*Hufeland*."

Far be it from us to judge the *intention* of the writer, but, as a lover of truth, we must say that the communication itself, in at least one important particular, is calculated to convey an entirely false impression.

The natural inference from his article is, that while the members of the Association generally disapproved of, and condemned the acceptance of the legislative grant with its obnoxious conditions, the members of the Medical Faculty of the College, who were present, *approved of* and *sustained* it.

Now what are the *facts* in this connection? In the first place, a communication in writing was presented, bearing the signatures of all the Professors, to the effect, that the Association might rest assured that, so long as they continued their connection with the school, it would be managed, *in all respects*, upon the same good old principles as it always had been. Again, it was repeatedly stated in words that the unanimous sentiment of the Faculty was, that, sooner than consent to any modification of the present requirements, of which, however, there was no danger, they would resign their professorships *en masse*.

It is true that the lecturers present opposed the passage of the resolution, as did other able members of the Association, but the ground upon which they opposed it was plainly declared, viz., that they were not satisfied with the *terms* of the resolution. The two principal objections urged were, *first*, it would not convey to the Trustees so *courteous* or so *full* an expression of the views of the Association as was desirable; *secondly*, that in expressing a disapprobation of the action of the Trustees, it would also tend to injure, for a time at least, the school itself, in whose usefulness and prosperity all expressed the liveliest interest.

The grant was doubtless accepted by the Trustees before they fully understood the bearings of its conditions, or the general sentiment of the profession in relation to them. They can have but one purpose or desire in relation to the Medical School, viz., to promote its usefulness. That the grant, with such provisions, would injure its usefulness, is now fully apparent, and they will of course adopt, at once, the most efficient measures to relieve it of the opprobrium at present resting upon it.

The Trustees and Overseers of Bowdoin College sustain a relation to the Maine Medical School, similar to that of the Corporation and Overseers of Harvard College to the Mass. Med. College, and to that of other University Boards to most of the best Medical Colleges in the land. The cause of medical education is *safe* in the hands of such men. "*Humanum est errare*;" but if they err, they will rectify. The two Boards of Bowdoin College are composed of the most distinguished and high-minded men in the State, of every profession. To

suppose that they would persist in any course which would tend to injure the reputation of the Medical School and tarnish the honor of the medical profession, is preposterous.

Meantime, in this moment of temporary embarrassment, what course should the friends of the School pursue? Some thirty or forty members were present when this subject was discussed at the late session of the Association in Bath, and they had an unquestioned right to express the sense of the meeting on this or any other relevant topic in the form of a resolution, but the moral responsibility of individuals cannot be discharged *vicariously*, and every physician must decide for himself what course he ought to pursue in this matter. We believe that the true friends of medical education in Maine, and the true friends of the School, will rally round it, in the full conviction that, in one way or another, it will speedily and satisfactorily be relieved from this embarrassment, and that they will not cease for a moment *to labor for and with it.*

VERITAS.

P. S.—We have just learned that at the recent commencement at Brunswick, an able committee of the Trustees and Overseers was appointed to co-operate with the committee of the Maine Medical Association in this matter.

CRIMINAL ABORTION.—We extract the following remarks from the letter of a physician in a neighboring State to Dr. Walter Channing. The growing prevalence of this evil naturally arrests the attention of every one at all alive to the interests of humanity, whether physically or morally considered.

“I will take this occasion to ask if any one can foresee the result of criminal abortion, and other means of interrupting procreation, so extensively practised at this time? In localities where I am acquainted, though the population is chiefly Anglo-American, full three fifths of the children born and reared are of German, Irish, or other foreign parents, principally in the lower walks of life, who either have less repugnance to rearing families, or have not been initiated into and adopted ‘modern improvements’ (?). Waiving all consideration of the moral tendency, what is to be the physical result of this widespread violation of a great natural law? Is it invalidism and premature decay of the female portion of the present generation, and final decay of the race? It would seem that a very limited progeny, conceived by accident, and grudgingly borne after withstanding repeated intra-uterine assaults, must ultimately tell upon the character and condition of a race.

“In view of the alarming extent of the evil, and the inefficiency of legal enactments, may not able tongues and able pens interest and instruct at least the medical philosopher; or has enough been already said and written upon the subject?”

MORTALITY AMONG THE BLIND.—At the late meeting, at Newport, R.I., of the American Association for the Advancement of Science, amongst other subjects of general interest which engaged the attention of the members, we find the following—obtained from the experience of one who is well known in this department of science.

“From the largest mass of statistics ever collected on this subject, viz., 1,252 cases, furnished by Dr. Howe, Dr. Elliott has constructed a *biometre* or life-table for the blind, by which we are able to compute

a number of interesting and practical problems. He showed that the average of life among the blind was not nearly as great as among others, and traced their short-livedness to three causes: 1. Inherent deficiency in vital power. 2. Narrow range in the choice of employments and amusements. 3. The loss of this important sense exposing them to accidents and depriving them of the opportunity of protecting themselves.

“ Dr. Howe remarked that if we take the belt of the north temperate zone, we find by computation that there have been about the same average proportion of blind persons in all ages as now, viz., about four or five thousand in every ten millions of population; and such a large element must have its effect upon society. Is this an essential or accidental condition in human society, or may it be guarded against? He took the latter view, and argued that if society would live up to the natural laws, congenital blindness would cease. The blind are commonly divided into two classes—those born blind, and those who become blind by disease or accident. The distinction, however, was not philosophical; there were rather those born blind, and those who, if not born blind, were born to become blind, from original lack of vital power. He instanced workers in mosaic as examples of the enormous capacity of endurance of the eyes: men also working in smoke and dust will wipe out great quantities of ashes and cinders from their eyes every night; in fact, it is almost incredible how much wear, tear and external injury may be endured by eyes originally sound. There were three chief causes of blindness: 1. Scrofula. 2. A general depraved bodily condition. 3. Intermarriage among blood relations, especially where the temperament of the parties is similar; for it seems that similarity of temperaments, or what might be called *convergence of tendencies*, increases the evil of intermarriage. Generally, the structure of parents or grandparents was originally unsound, or their ages were ill-assorted, or the crossing was insufficient. Disease seldom destroys sight in persons whose eyes were originally strong. The offspring of the blind was usually small in number, and feeble in general organic structure—though blindness caused by mechanical causes does not vitiate the offspring. The permanent cure for blindness as a condition of society, consists in man’s power of adapting himself to the laws of his organization. Nature also has provided that in the struggle for persistent life, the blind will be overcome and disappear, which is only another mode of stating the old doctrine of the *vis medicatrix nature*—the tendency of nature to get back to normal conditions.

NEW MEDICAL JOURNALS.—Two remarkably well-printed and promising-looking medical periodicals have been received during the past week, both of which are marked by more than ordinary ability in the original and selected articles.

The Columbus Review of Medicine and Surgery, under the editorial care of Dr. W. L. McMillen, is published at Columbus, Ohio, and is advertised to appear on the first of every alternate month. The number before us contains several well-written reviews of recent medical works, besides much interesting original matter. It is the design, as stated in the introductory address, to give much space to original papers upon subjects of practical importance, while the department devoted to analytical reviews is to be made especially prominent.

The London Medical Review is a monthly journal containing much interesting medical information, and presenting the usual inviting appearance of the better class of English periodicals. Its design and scope may be gathered from the in-

troductory address, from which we quote the following:—"Having in view the advancement of science in general, and medical science in particular, we have made extensive arrangements in order to collect and record the progress of discovery and the results of experiments abroad as well at home."

Although it cannot be said that there is at present a dearth of medical periodicals, we shall be disappointed if the two before us do not prove an important and lasting addition to our medical periodical literature. We cordially wish them success.

HYDROPHOBIA IN ROXBURY.—We learn that a well-marked case of this disease terminated fatally in Roxbury on Sunday last. The patient, Thomas Dascomb, was bitten by one of his own dogs about seven weeks ago. The first symptoms appeared on Thursday last, when he for the first time felt a disinclination to take water. The dog which bit the patient died a week after this occurrence, with all the symptoms of hydrophobia.

ARRIVAL OF THE BOOKS OF THE SYDENHAM SOCIETY.—We are requested to state that twenty-five sets of the Sydenham books, besides those subscribed for, have arrived, which may be had on early application. There are also a few copies of the past year's publications of the New Sydenham Society, which can be supplied to persons desiring them, for \$6.25 per set of five volumes. As the demand is quite urgent, application must be made soon to Dr. Salter, No. 1 Staniford St.

A CASE OF DEATH FOLLOWING THE INHALATION OF CHLOROFORM took place at Bellevue Hospital, New York, on the 1st inst. The patient was a man 40 years old, who complained of nothing but a chancre under the prepuce. Not more than an ounce of chloroform was administered, and the usual care in giving it seems to have been taken. The *Medical Times* states this to be the second case of death by chloroform in that Hospital within a year.

THE Eighth Annual Meeting of the American Pharmaceutical Association will take place in New York, Sept. 11th, at 3 o'clock, P.M.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, AUGUST 11th, 1860.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	61	57	118
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	55	46.4	101.4
Average corrected to increased population, . . . . .	..	..	116.3
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infantum.	Scarlet Fever.	Pneumonia.	Measles.	Smallpox.	Dysentery.
9	41	6	3	2	1	4

METEOROLOGY.

From Observations taken at the Cambridge Observatory.

Mean height of Barometer,	29.955	Highest point of Thermometer,	89°
Highest point of Barometer,	30.174	Lowest point of Thermometer,	65°
Lowest point of Barometer,	29.816	General direction of Wind,	S.W.
Mean Temperature,	74° 1	Whole am't of Rain in the week	1.14 in.

BOOKS RECEIVED.—O'Reilly on the Anatomy and Physiology of the Placenta, the Connection of the Nervous Centres of Animal and Organic Life. New York. (From the Author.)

DIED,—In Hamilton, Ohio, Dr. Robert B. Millikin.—In Dayton, Ohio, July 17, Dr. Job Haines.

Deaths in Boston for the week ending Saturday noon, August 11th, 118. Males, 61—Females, 57.—Accidents, 3—congestion of the brain, 3—disease of the brain, 4—inflammation of the brain, 1—cholera infantum, 41—cholera morbus, 2—consumption, 9—convulsions, 5—debility, 2—diarrhœa, 1—puerperal disease, 2—dropsy, 1—dropsy of the brain, 6—drowned, 1—dysentery, 4—scarlet fever, 6—typhoid fever, 1—hæmorrhage (uterine), 1—disease of the heart, 2—intemperance, 2—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 3—marasmus, 3—measles, 2—old age, 1—paralysis, 1—pleurisy, 1—smallpox, 1—suicide, 1—sunstroke, 1—ulcer, 1—unknown, 3.

Under 5 years, 73—between 5 and 20 years, 9—between 20 and 40 years, 16—between 40 and 60 years, 14—above 60 years, 6. Born in the United States, 91—Ireland, 20—other places, 7.

THE

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No. 4.

ON THE TREATMENT OF TYPHOID FORMS OF SCARLATINA BY
TONICS, ALCOHOLIC STIMULANTS AND FOOD.

[Read before the Middlesex East District Medical Society, July 11th, 1860, and communicated for the Boston Medical and Surgical Journal.]

BY BENJAMIN CUTTER, M.D., OF WOBURN.

THE severest types of scarlatina prevailed during the past winter in the town of Winchester, and the number of fatal cases was large for the sum of the affected. Several died very suddenly in two or three days after they were attacked by the disease, with very few if any of the premonitory symptoms of a mild or lighter character, such as we generally see; stupor and coma, with difficult respiration, sometimes alternating with severe struggles for breath, and attempts to leave the bed, requiring the strength and efforts of two or three persons to keep the patient on the bed, and the clothes on the patient; great restlessness generally, and jactitation; dark hue of skin, and enlargement of pupils; pulse excessively quick and weak.

CASE I.—A child, of 7 years, was taken, Jan. 29th, with vomiting. Was seen in half an hour from the attack of vomiting in the morning; had eaten breakfast. Found her with pulse 140; strawberry tongue; throat quite free from inflammation or swelling. Gave emetic of ipecac, to be followed by veratrum viride *pro re nata*. Emetic operated passably well, and the next day she was no worse. She continued without improvement another day, when typhoid symptoms developed themselves, and the case was decidedly getting worse. Tonics were administered, with food and stimulants; wine especially, which it was found difficult to administer on account of the increased swelling and soreness of the throat. When I found I could not give this by the mouth, I directed the mother to use the syringe. With a good deal of hesitation and much doubt, she injected a wineglass of Sicily Madeira wine, and as much thin starch, when the child was in a very restless condition, and opposed to the administration of the enema.

The effect was very marked and happy—so much so, that, before morning, on a return of these symptoms, the mother repeated the enema on her own responsibility. At my next visit I found the patient rational, and the appearance in her favor very much improved. In a week the patient was convalescent.

CASE II.—A younger child was attacked in the same manner, and treated much in the same way, with a happy result.

CASE III.—A boy 3 years old, Irish, was severely seized, and died in five days. I gave an unfavorable prognosis from the very first, as the child was in a hot, crowded tenement, and could not have proper nursing or treatment.

CASE IV.—Boy 11 years old. Was taken at school with vomiting. I found him with pulse 144, respiration 28, skin red, throat sore and swollen; breathing hard, with enlarged tonsils of former times. He took ipecac, was rubbed with lard, and sometimes sponged with water. The emetic did not operate very well, but he was more comfortable the next day. The day after, I found his symptoms all aggravated, and of a strong typhoid character. I then put him on a course of stimulants, and as he could not swallow readily, and his stomach loathed everything, I had recourse to the syringe. His enemas, which were faithfully given, and readily tolerated, were of two fluid ounces of wine, with as much thin starch, or beef, mutton, and chicken tea, and were continued for a week or ten days, every four hours a part of the time; they were absorbed, perhaps digested, and very seldom moved the bowels. On one occasion he had 16 enemas before any came away. He had all the other appliances he seemed to require, and eventually made a slow recovery, retarded by a large abscess, that formed over the sterno-mastoid muscle, and was opened.

CASE V.—A child, 3½ years old. Taken very severely, and died the second day I visited him, with marked cerebral symptoms.

CASE VI.—A child, 6 years old. Severely seized; became relieved at the end of a week, when there was a return of canker in the throat, with renewed fever, and eventually she died, with pneumonic symptoms, and in the extremest state of emaciation. All means were used, and the stimulant practice fairly tried without success.

CASE VII.—An infant, nine months old, large of its age, was taken with scarlatina, without much rash or sore throat, but with great thirst, and vomiting. The disease seemed to expend its violence on the mucous membrane of the intestines, the symptoms appearing continuous with cholera morbus, and dysentery, causing a true gastro-enteritis. The little patient lived about four days, and water could not satisfy his thirst. He wanted the cup or spoon at his mouth constantly.

CASE VIII.—An Irish child, one year old. I expected it would die from want of proper nursing. I tried to favor the prejudices of the mother, and prescribed wine. In a week I stopped my

visits, as the child appeared convalescent. A fortnight after, I heard of the death of the child, but do not know whether any change took place in its symptoms.

Ten or twelve other cases, in Winchester, were treated chiefly with the stimulating hydro-carbons, mostly by the mouth, with success.

CASE IX.—J. B., 17 years old. Was taken the 20th of May. Saw him first on the 22d. Throat red, shining, some stringy mucus therein; rash out fully; head aches; hot; has had pepper tea. Gave him ipecac to vomit, and the veratrum viride afterwards.

May 23d.—Used the chlorine mixture, ice-water and bladder to the head.

24th.—Purged him, and gave wine. Inclined to be crazy, and sitting up.

25th.—Much canker in the throat; no clothes on; picking at things. Ordered the wine and water, wine whey and brandy. Mother was unwilling to give stimulants sufficiently freely.

26th.—Found that the wine had been disused since last visit, as his mother thought he was worse for taking it, causing more heat and fever. He was crazy, had subsultus, and was continually trying to get out of the bed, and once succeeded in getting partly out of the window. For two days he had a male nurse, who minded the mother in giving the medicines. I told her that her fears were needless, as I had never seen fever made higher in these cases by the wine, and I could not see why the wine had not benefited him more. I increased the dose, and that night he had three injections of half a pint of Sic. Madeira wine, with beef tea. He slept, and in the morning was free from subsultus and delirium. His brother, who watched that night, advised me to increase the quantity of wine still more. Pulse was 100; respiration 28.

For another week he continued to improve, when most of his old symptoms returned, and with them the subsultus, and I am satisfied that this second attack was owing to the fears and practice of his mother. His legs swelled, sores from sloughs came on both heel-cords, and a return to the strong stimulating practice was absolutely necessary. While improving, the week previously, his appetite became good, which was unexpected, and was considered a very good symptom in his favor. It was necessary to recur to the use of the wine injections with beef tea and sol. sulph. quiniæ. The legs were poulticed, and after cleansing the dead portions, dressed with adhesive plaster, and bandaged from the toes to the knees. He began to improve slowly, and is now convalescent. During his sickness he has used three gallons of Sicily Madeira wine, besides brandy and gin. The brandy would be retained on the stomach better than anything else, when nausea prevailed, as it did most of the time. When he could drink, the wine was very unpalatable. For his throat he had a sponge, with strong solution of nitrate of silver. He took a chlorinated solution of chlorate

of potash. Sometimes he had *mur. tr. ferri*, and the milder preparation of iron, the *sol. tart. ferri et potassæ*.

THE BED CASE,

OR AN IMAGINARY AFFECTION WHICH CONFINES THE PATIENT IN BED, AND IS PRECEDED OR NOT BY DISEASE.

BY WALTER CHANNING, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

THIS disease gets its name from a symptom. Its subjects LIVE IN BED. They may be taken up daily, weekly, or monthly. But not as others take themselves up to stay up, and to live up. They are taken up mainly to be put into bed again; or, in other words, to have the bed moved and made anew, that it may do the most and the best for its patient tenant for the four-and-twenty hours next ensuing. Few things would strike the observer more than the cheerful endurance of exile from the outward world, its enjoyments, its excitements—did he not see in it intellectual and moral features which are often singularly attractive. It is a life entirely by itself. It is an experience which nothing but itself presents. It is a whole life, and yet the most unchanged of all lives. The patient does not go from the blue room to the green one; that change of place which figures so largely in an old novel. The chamber, on the contrary, is the whole and sole home—the journey is from bed to chair. The business of life consists in being taken daily out and put back into the same two places, the bed and the chair, and which at length become as one, the difference being too slight to raise a suspicion that they are other than the same.

But how fares it with the Bed Case? What is its life? These questions are specially pertinent, for in their answers may be found the history of the case itself. This is a perfectly natural way of telling such a story, for we are literally to look into itself for its own and whole history. Its physiognomy is peculiarly striking, so that he who has once really seen it—for many observers do not *see* what they *look* at—he or she who has seen a genuine Bed Case will hardly fail to recognize it, even under the various and seemingly different phases which it may present. It repeats itself in a thousand cases, and though the remark will be again and again made, “How strange all this is! why does not Miss or Mrs. Blank get up?” &c. &c.—he who makes it, does it often only from habit, or from as common a motive, viz., that it is as easy to say it as anything else.

But let us go into detail, and speak of this affection as it declares itself in the *body*, the *mind*, the *heart*—in other words, of its *physical*, its *intellectual*, and its *moral* aspects.

1. *Physical*.—Painless quiet and repose; a good appetite, good food, and good digestion—a tranquil mind, and no sense of responsibility concerning active duty—the present absorbing the

future—kind offices from others which know no interval nor abatement; with these and other ministries to comfortable existence, it is not at all to be wondered at, that the body in the Bed Case is often well conditioned, the flesh abundant, and the complexion excellent. I have met with this physical condition in many cases, and in those of the longest continuance. The state of repose, of living in bed, has been gradually induced. Its cause may have been some slight uneasiness on motion; or it may be the advice of the physician. It has not at once taken entire possession of its subject. There has been occasional exercise—a journey, it may be. But the intervals have insensibly increased, until locomotion has ceased almost entirely, the confinement being first to the house, next to the chamber, and lastly to the bed. It will be seen in this history, how little violence has been done to the newly acquired habit of rest in the progress of the case, or during the passage through its stages. The body, which has become gradually accustomed to its discipline, experiences no shock; in other words, its functions proceed without disturbance, and the result, the general bodily result, is in the mouths of all.

I have spoken of this good appearance of the Bed Case because it is not rare, and, in some patients, it is very striking. I occasionally see a case of fourteen years growth. It began about puberty with weariness, lassitude, both increased by exercise. At length the spine was diseased, or thought to be so. It was when such diseases occupied a large amount of professional interest, and institutions were forming for their cure. This case went through its earlier stages—the bed was at last reached, and it has never been forgotten or forsaken. The appearance of health in this case is striking. In another of four years standing, and following the birth of a child, the bed was taken early, or it was not left during convalescence from child-birth, and had been perseveringly adhered to till I was called in. In this instance the external characters of perfect, rude health, were more remarkable than have presented themselves in any case before seen, and this is almost the latest. The flesh was abundant—extravagant. The complexion of the healthiest bloom. The expression of the face full of contentment, passive enjoyment, and in the extreme, agreeable.

This appearance of health, and the fact, may exist, along with a belief in, or the actual existence of some functional or organic lesion, and which is most frequently referred to the womb, or to the spine. Pain—uneasiness—complaining—a state, in short, is induced in these cases by the distinct placing a symptom in some part of the body, in consequence of something felt there, which especially characterizes the Bed Case when existing in its intensity, and which separates it from all other chronic troubles. In these cases the health is not good. The appetite fails, is capricious—the rich tit-bit is too rich, and the plainer food is too plain.

The stand is at the bed-side, covered with luxury in detail, each specimen it may be small, but to the medical eye too large to allow of a favorable prognosis, or a hope that his patient will very soon dispense with his attendance, unless it be to secure the services of another.

In such cases we may have symptoms in masses which exist as individuals in others, but which embarrass treatment, prevent a true prognosis, and make the whole medical relation with the patient as uncomfortable as possible. Thus the Bed Case, if a genuine specimen of this affection—made by time and kindness very complete—will of necessity avail itself of any and every circumstance to produce comfort. Position is selected with care, and to this end. One limb is drawn up and at length fixed in a position which it seems at first sight almost impossible for it to have acquired. A lower limb, rarely both, and more rarely an upper one—I have never known an upper one attacked—a lower limb will gradually be found fixed in some position, sometimes the most awkward, and so it will remain for months if not for years. You must not touch it. You are hardly allowed to look at it. The result of either touch or sight, worse if combined in the examination, may be spasm, more or less violent and alarming, or an expression of pain so intense, that in any other than the Bed Case might be to some medical men alarming. At times the head becomes fixed, and is never moved, or attempted to be moved. The jaws become locked—sometimes fall, and mechanical means, or the hand of a friend, may be always required to keep it in place. I have met with but one case in which the upper extremities were so much affected as to make them useless—the patient, though looking in perfect health, being fed by a nurse. The exception here may prove the rule.

At times other troubles are complained of, but it is extremely rare to find those present which threaten life. Or if there be, compensating healthy functions present will show that there is no danger. Thus we may have cough—expectoration—pains in the chest in various parts—very rarely, however, do they affect those regions which are ordinarily the seats of fatal pulmonary lesions. But let them be never so severe—never so racking, you will find along with them a good pulse—good sleep at night—no sweats—fair appetite—good digestion, and no striking emaciation—sometimes no emaciation at all. On the other hand, you may have much emaciation, a most morbid aspect every where, but accompanied by no special local trouble to attract your notice or your apprehension. So far from this, I think I have found as speedy, if not speedier recovery occur in the most exaggerated cases, where limbs have been most rigidly bent, and the emaciation has been most declared. As if in the acme of the disease was its crisis, and its sure prophecy of recovery. In none of these cases have any physical signs been discovered which for a moment

suggested the existence of any such pulmonary lesion as threatened life.

With regard to the position in lying, or the *decubitus*, a word may be said. It is for the most part on the back. This may be the case, even where one or both of the lower limbs are contracted—a position, one would think, of all others the most awkward and painful. The shoulders are sometimes raised more or less, producing a sort of half-sitting, half-lying recumbency. The patient may lie upon the side; but whatever the position may be, if it be at all established by time, choice, or whim, it will be continued with a persistency which can hardly fail to attract the attention of the physician, and become to him an important means of diagnosis. But whatever the position, and however faithfully persisted in, it very rarely produces a lesion which is very often met with in diseases which keep the patient in bed.

Among these lesions are “bed sores,” so called. I have never met with one in the genuine Bed Case, nor is *soreness* of the back a complaint. The word *soreness* is underscored, as it must be distinguished from pain. It is thus very carefully distinguished in the popular use of the word, there being great *pain*, where there is no *soreness*, and *vice versa*. Whence this exemption from lesions of the skin, ulcers about the hips, sacrum, &c., in the Bed Case? There is long-continued pressure endured by the skin, and on the same points too, but no sores are produced. The exemption must proceed from the general good health. The processes of nutrition are well performed. Waste and supply are in harmony, and the skin is healthful, and retains the condition, the result of such state perfectly. It does not give way.

Face—Features and Expression.—The variety in regard to these is very striking. It depends upon the time of the disease, sometimes, at which the observation is made—much upon the character of the disease itself, whether painful, or the manner in which total want of exercise is borne—and much upon the temperament, whether physical, moral, or intellectual. In some cases, face, features, expression, and even complexion, remain unaltered, or so little changed, that it passes unnoticed. The features retain their outline, fulness—the color is good, perhaps becoming more delicate from being withdrawn from light, air, heat, cold, for the temperature of the Bed Case is a matter of prime interest, and fully receives the demanded attention. The expression will attract the attention of the observing physician. This, at times, is like the face which manifests it, perfectly natural. Placid, cheerful, it takes its part in the communicating that gratitude for daily and hourly kindnesses, which so often is conveyed by words. Habit has made resignation hardly a virtue, and the hourly regard of friends, expressed often very substantially, completes the catalogue of those causes which concur to give to the face the happiest, and even sweetest expression.

In other cases, we find other effects of chamber life. Suppose we are called early, see the patient from the beginning, and mark the progress of the case. Rest is not well borne. It produces irritability. The body suffers and declares its troubles. A febrile state comes on; the secretions are disturbed. Functions which, in their regular performance, are indexes of the health which they preserve or produce—these are irregular. The senses become morbidly acute. Sleep is disturbed. Dyspepsia in some form or degree exists. Now such a state hath its language. It utters itself by the tongue, and by the face. There may be dissatisfaction with all you do—fickleness, querulousness. The children must be quiet—the servants speak in whispers—and friends “come in without ringing.” The light must be carefully excluded, and the east wind unknown. Visits must be short, and conversation be carried on by pressure of the hand, or the motion of the fingers.

Under the pressure of these and like circumstances, it is not to be wondered at that the face and its expression, nay, and the whole form and bearing of the patient, should be changed from that which was before more or less natural to it, and indicate disease; give to friends and physicians the idea of alarming maladies. The skin gets dark; its secretions insensibly accumulate, in and about the glands; spots, brown, strongly defined and ephilus, appear on the forehead, neck, and elsewhere. The skin looks dirty, soiled, and may be thence concealed. The forehead is wrinkled and contracted. The face and body are thin. There is, indeed, but little daily waste, but the food craved and taken is not the best to repair what waste happens. The nose gets pinched; the eyes are sunken; the lips grow thin, and the ordinary expression of the mouth is wanting. The bowels are torpid, and, as more or less of agony comes of stirring the body, costiveness, which was at first accidental, becomes habitual, and so is easily tolerated. In short, the whole livery of chronic disease is gradually put on, and in no long time becomes “the only wear.”

The Senses.—These show strikingly the characters of the Bed Case.

To the eyes, light is, it was said, very annoying, and must be carefully shut out. But the light seems changed. It is of various colors. At times there is partial, at others total blindness. There may be sight of one eye only. Flashes of light only are seen in some cases. Objects are imperfectly seen, half of one for instance, or one only when many are together.

The hearing. It is very acute, as before observed. It may be dull. Deafness may occur.

The taste and touch and smell do not escape. Sometimes by excess, sometimes by diminution of power, is their disturbance declared. In some cases so exquisite is the sensibility of the organs of these functions as to add greatly to the discomfort of the patient. The slightest touch approaches to a torment, while the taste and

smell add to the general discomfort, and this too in regard to articles which in ordinary health may be agreeable.

The Head.—Pain in the head is very frequently complained of. There is throbbing often, and if an anæmic state be induced, the noises in the ears which attend that condition become almost intolerable. Sometimes the pain is confined to some small spot in the forehead over the eye, one eye; sometimes in the temple. This pain is often intense, sometimes intermitting, and at others constant.

The Chest and Lungs.—We find various symptoms in the lungs. There is dyspnœa; elaborate, painful breathing; at times it is sighing. Cough—dry, hacking, painful cough, and this with much distress, and disturbed sleep. The emaciation and rapid pulse which may attend, might lead one to fear coming or present phthisis. In such a case *physical signs* are invaluable, and the patient and friends may have their minds put at rest. The patient may be the latest to give up the belief in existing consumption, since it is a character or sign of the Bed Case to despair of recovery, and it seems even to seize with avidity upon such occasions as may contain or give the strongest evidence, furnish the best proof, of the reason of their faith. But as belief in recovery, a hope which the sure progress of consumption cannot weaken, is among the strongest moral proofs of this disease where it exists, the entirely opposite state in regard to it, in the Bed Case, would go far to diminish in the professional mind the belief that phthisis, however closely imitated, is present.

Pain in one or both sides of the chest—extensive, or occupying but a small space—may be present, and will greatly annoy the patient. But the seats of pain are peculiar, or are not in those parts of the chest which most frequently are the places of that pain which marks the local occurrence of inflammation, and which is accompanied by more or less increased general disturbance.

It is the special duty of the physician to make use of all the means which will aid him to a true diagnosis in cases like these. If he neglect to do this, or fail in reaching an accurate knowledge, his patient may be abandoned to a fate which might have been avoided; means will be omitted which might have restored health, and the examination after death may discover a perfectly healthful condition of the lungs, and of all other organs.

The Heart.—Few of the symptoms of the Bed Case are more strongly marked, or more likely to mislead, than those which refer to the heart. The sensibility may be increased, and pain is a common and distressing symptom. Much of the time may be passed in severe suffering in the region of the heart. It is sometimes confined to a spot, as if organic lesion existed there. At others, or in other cases, it is diffused, much or all of the organ being complained of.

In some instances the action of the heart becomes excessive;

violent palpitation exists, and the motions of the heart become visible; its sounds audible, and its movements are perceived by the touch, and over a surface rarely exceeded by its gravest organic affections. I have met with a case of this affection, in which the tumultuous action of the heart suggested to the patient the idea that it was turned over and over, in its contractions, the utmost confusion in its functions being supposed to exist. In this case, such was the agony of the heart, and so fruitless were found all remedies, both ordinary and extraordinary, that blood-letting was at last tried. It gave great, and immediate relief. The distress was paroxysmal, and the patient soon demanded blood-letting in every attack. To such an extent was this demand made and indulged, that when the young woman came under my care, she reported *ninety-seven bleedings in two and a half years*. She was now perfectly anæmic—the whitest living person I ever saw. She was not emaciated, or was suffering from some morbid fullness, the skin not affording the ordinary tint of œdema.

I directed such means as might diminish irritability and gradually give tone, and in an improved general condition looked for amendment in the restoration and establishment of healthful functions. She was not to be *blooded* unless everything else failed and circumstances should clearly indicate that death was at hand. The quantity was not to exceed eight ounces. I now know enough of such paroxysms to teach me that the condition was misplaced. Death is *not* hazarded in such cases, at least such is now my opinion, and an extreme remedy for a self-limited suffering was the most dangerous treatment. A paroxysm did not occur until a longer time than usual from the preceding one. It was a very severe one—the most severe, according to the patient's account, that she had ever experienced, its force being increased by the interval. It was thought necessary to bleed, to prevent death. The blood spirted from the opening in the vein as if a large artery had been opened. It was not of the color of venous blood, but of a bright though pale arterial color. I was told it flew nearly across the ward. The quantity directed was almost at once got, with much waste; but before the hæmorrhage could be checked, a great deal more was lost. Perfect relief, and entire exhaustion, followed immediately on the operation.

A full statement was now made to the patient of her condition, of the liability of return of the paroxysms, and the utter wrong that was done to her by blood-letting, and that I could not permit its being done again. She soon declined my further attendance, returned home, was again and again bled, and died.

Upon examination after death, the heart was found of natural size, and free from every trace of organic disease. The same was found to be the case with every other organ which was examined.

I have given this rapid sketch of a most important case, in this place, because though it presents an extreme instance of the condi-

tion of the heart in the Bed Case, it may the better become a key to the various forms of cardiac disturbances which are met with in it. We may rarely meet with a case of equal violence. The treatment may rarely be carried so far. Present relief may not always be regarded as the only present indication. Experience and careful observation will pretty surely show that ultimate recovery is hardly to be looked for from the continuance of such treatment for such an end.

The Bed Case furnishes various degrees and different forms of heart trouble. It imitates the gravest, as above, as well as the less severe, and so perfect are its imitations in all, that if *rational* symptoms alone be relied on, we are liable to fall into the saddest mistakes in practice.

Of the Abdominal Viscera.—The organs of micturition suffer in the Bed Case. The entire absence of exercise; the capricious, and sometimes craving appetite; the indulgence of friends, and the very natural feeling to make such a life tolerable in any way, and if in no other or better, by feeding; the tolerance of costiveness, and of overloaded organs, arising from undue activity of others; the small waste, and the small demand for supply; the daily employment of medicines for the relief of pain, or to promote sleep, and especially opium—all that is necessary or contingent to the disease, tends more or less to produce disturbance in the abdominal organs, and actually does as much or more than any other agency to produce suffering, and to perpetuate disease.

We sometimes find that notwithstanding all sorts of embarrassments to the healthy performance of the function of the organs of the abdomen, the Bed Case is not only not emaciated but is fat, very fat. I rarely meet with more positive marks of excellent health than in this disease. The skin is clear, complexion excellent, and the habitual expression natural, kindly, furnishing not the smallest evidence of ill-health. I have known this to happen when the Bed Case phenomena, beginning in absolute girlhood, as in the "spine in the back" case, and extending hence over full fourteen years or more, would have led one to look for the extremest emaciation. In one instance in which this condition of more than average nutrition manifested itself, all other members of the family, the mother and sisters, were striking for their want of all *embonpoint*, presenting the marks of deficient nutrition, amounting to extreme morbid emaciation.

In other instances the opposite to all this exists. No matter what may be the appetite, no matter how kindly and faithfully it be provided for, emaciation occurs to an extent only paralleled in the advanced stages of phthisis. Along with this we have all other symptoms of the Bed Case in extreme forms, and out of them all, patients have come into full health and active life. I have a case in mind which came under my observation in 1851, in which, when the woman left her chamber to begin what she thought an impos-

sible journey, she weighed 70 pounds, but who, in about three months after, called on me at my house and said she weighed 106, and seemed in perfect health. The change in this instance was the more remarkable, as not only her body but the mind had yielded to her disease, so that it seemed impossible for her long to survive. Thus are we presented in this disease with the greatest variety and contrariety of symptoms. We have apparently rude health, the mind clear, and active; the affections declaring themselves in gratitude, cheerful submission, strong hope of recovery; the body perfectly well nourished, sometimes unusually fat; color good, skin clear, functions perfectly performed. In other cases we have the reverse of all this—emaciation, querulousness, unhealthy skin, feeble intellect, entire absorption in one's self; hopeless, helpless, wholly wretched. Now, however it may be in all these respects, whatever antagonisms cases may present, there is no difference in the essential nature of the disease. The pathology is the same in them all. The cases are all alike—there is one “spirit,” whatever may be its “manifestations.” Few facts in the Bed Case require more carefully to be kept in mind than these. They will save us alike from errors in diagnosis and in treatment.

[To be continued.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

JULY 23d.—*Calculus from the Urethra of an Ox; Death from Retention of Urine and consequent Rupture of the Bladder.* Dr. JACKSON showed the specimen, which had been recently sent to him by Dr. J. H. Blake, of North Auburn, Me.

Dr. J. also reported a second case, of which the history was given to him by Dr. O. Martin, of Worcester, Mass., since he had received the above specimen. The animal was sick for some days, with pain and straining, but passed no urine after the first of the attack. On dissection, a compact, rough, light-colored, rounded calculus, about one third of an inch in diameter, was found in the urethra, four or five inches from the end of the penis; with much inflammation of the passage as far forwards as the calculus, but not anteriorly to it. The bladder was contracted, inflamed towards its neck, and lacerated to the extent of about an inch. The peritoneal cavity contained an immense quantity of fluid having a strong urinous odor, and there was some inflammation. The case occurred within two months, and the death was of course attributed to the pleuro-pneumonia that was then epidemic amongst the cattle of this State.

JULY 23d.—*Passage of one Prong of a Pitchfork through the Body, from the Perinæum to the Umbilicus; Recovery.* Dr. JACKSON showed the iron portion of the pitchfork, which he had recently received from Dr. Edward F. Barnes, of Marlboro', in this State. The accident happened about seven years ago, in the practice of Dr. B., and the

subject of it is now a stout, healthy young man, about 21 years of age. In ascending a hay-mow, with the fork in his hand, he lost his foot-hold, and in order to regain it, let go the fork, which slid down the mow first, and then he after and upon it. His father, who was near by, hearing his cries, ran to him and pulled the fork from his body. The prong that passed through him had previously been broken midway and afterwards mended; but it was not so strong as before, and consequently was somewhat bent at the time of the accident. The point came out about an inch to the left of the umbilicus. A small portion of the omentum, also, appeared at the wound, and, having been returned by kneading with the finger and the probe, it was confined by adhesive plaster. The intestines seemed to have escaped all injury.

For the first two days the lad was kept quiet by opiates, and closely watched night and day, to prevent the least motion of the body. After this, the symptoms being much milder than could have been expected, greater freedom was allowed. The accident happened in the autumn, and Dr. B. cannot say whether the lad went to school during the winter or not; he did no work, however, until the spring. During the winter, he complained of slight trouble in evacuating the bowels, but Dr. B. has heard of nothing since.

Dr. J. alluded to the number of fearful accidents that had occurred in this part of the country, as the result of sliding down from a hay-mow, and in which, so far as we can judge from the published cases, death seems to be the rare exception. Some of them, at least, are what the European surgeons would call "American cases," but there is not one of them of which all the essential facts were not well attested, if there is any dependence to be placed upon human testimony. Dr. J. said that, though they had all (seven in number) been reported, and generally in detail, it might be well to give a brief analysis of these cases in connection, as it had never yet been done, for the sake of medical science, and, through the profession, as a caution to the farmers.

I.—Case reported by Dr. H. B. Burnham, of Epping, N. H. (Boston Medical and Surgical Journal for July 12, 1860.) A man slid down from a hay-mow, and fell upon a rake-handle, which entered the scrotum, traversed the integuments, and came out in the right hypochondriac region. Recovery rapid.

II.—Dr. Joseph Sargent's case. (American Journal of the Medical Sciences for October, 1853, and Boston Medical and Surgical Journal, for December 11, 1856.) A woman, aged 37, slipped from a hay-loft. A pitchfork entered the vagina, passed the whole length of her body, and fractured the first rib upon the left side; considerable ecchymosis just above the clavicle, after the accident. Recovery complete. Five years afterwards, Dr. J. saw the woman with Dr. S., and an irregularity of the united fracture was sufficiently marked.

III.—Dr. Peter P. Woodbury, of Bedford, N. H. (New England Journal of Medicine for 1825.) A girl, aged 15, slid from a hay-mow. A cart-stake entered the rectum, and came out three inches from the left nipple, breaking three of the ribs, and projecting six or seven inches. In six weeks she went to school, and when the case was reported, the following year, she "enjoyed the finest health." This case was afterwards referred to by Prof. R. D. Mussey, in his lectures on surgery at Hanover, N. H., and the cart-stake shown. A model

of this last is in the Society's Cabinet, sent by Prof. E. R. Peaslee, of Hanover, with the statement that the girl died of typhoid fever about seven years after the accident.

IV.—Dr. J. P. Maynard, of Dedham, Mass. (Boston Medical and Surgical Journal, August 13, 1857.) A little girl, aged 11 years, slid down from a hay-mow and fell upon a hay-hook. The iron point and barb passed through the vagina, bladder and peritoneal cavity, wounding the intestine, and making an external opening by the side of the umbilicus. The instrument was withdrawn, as it went in, by Dr. Stimson, of D., who subsequently got possession of it and presented it to the Museum of the Medical College in this city. After the subsidence of the severe symptoms that followed the accident, Dr. M. undertook the treatment of the fistula, and with so much success that in the course of the sixth week he discontinued his visits. The child played about out of doors, and to all appearances was sufficiently well, when a diarrhœa came on, and she died in about ten days, nearly eleven weeks from the time of the accident. A fistulous communication was found between the vagina and bladder, and between this last at the fundus and the intestine; also a portion of omentum between the rectus muscle and the external cicatrix.

V.—Dr. Zadok Howe, of Billerica, Mass. (Boston Med. and Surg. Journal, March 11th, 1840.) A lad, aged 15, slid from a hay-mow upon a hay-hook. It entered the perinæum and came out two inches from the umbilicus. Having been sawed across, the opening in the abdominal parietes was enlarged, and the iron-barbed rod, nearly fourteen inches in length, was drawn through the young man's body. In about three weeks he was dressed and walking about the house; and nine years after the accident, Dr. H. stated to Dr. J. that he continued quite well. The hay-hook resembles, essentially, the one referred to in the last case, a figure of which has been given by Dr. M. Dr. Howe says "quite a number of such cases have fallen under my notice; and I am constrained to add, that too many of them have terminated in death;" he gives, however, two cases besides the above, and in neither of them, though the wound was deep, did the hook come out through the abdominal parietes; one of these last was fatal.

When case No. II. was alluded to for the second time, Dr. Coale gave an abstract of several foreign cases of impalement, and in most of which, the patients recovered; four of the patients fell from a tree, and, by a singular coincidence, three of them fell upon a trellis.

VI.—In the American Journal of Medical Sciences for July, 1850, Dr. H. J. Bigelow published a case that has been referred to as an "American Case," at least once during the past year, in one of the large European capitals; the well-known case in which what may be called a short, but otherwise full-sized crow-bar, passed entirely through a man's head—the individual not merely fully but rapidly recovering. Such a result would seem to be utterly impossible; and yet, all of the important facts in the case were most fully substantiated; and it may well challenge the whole records of surgery for a parallel. A few years ago the man passed through this city, on his way to South America, and that was the last that we have seen or known of him.

JULY 23d. *Etherization in Labor.*—Dr. STORER asked if gentlemen had noticed a want of contraction of the uterus in women who had inhaled ether during labor? Within a few days he had seen two cases

in which profuse hæmorrhage had occurred after delivery, owing to relaxation of the womb, and in each case the patient had been etherized, though in neither was the quantity of ether given specified. He had seen it stated abroad that hæmorrhage was apt to follow the use of anæsthetics. He thought that uterine hæmorrhage was extremely rare; he had not seen a dozen cases since he had been in practice of sufficient severity to entail any serious consequences, and it was remarkable that two cases should have occurred to him at about the same time, both patients having been etherized.

Dr. J. P. REYNOLDS did not see how it was possible to draw the inference that the want of contraction was due to the ether in these cases:—similar accidents often happen when no ether has been given.

Dr. J. BIGELOW was about to make the same remark; sequences such as those reported by Dr. Storer, often occur in practice, and he thought that failure of contraction in the womb was as common before the practice of etherization as since.

Dr. STORER said every one must have observed that the inhalation of ether often arrests labor-pains; so much so, that we are frequently obliged to suspend it. If this be the case, why may not ether cause relaxation of the womb after delivery?

Dr. J. BIGELOW thought that labor-pains were as active, in the aggregate, since the use of ether had become common, as before. He was not inclined to attribute so much effect to etherization in arresting uterine contractions, as in preventing pain. If we give the mother ether enough to make her insensible during delivery, and then desist, and the uterus contract and expel the placenta, can we suppose that its subsequent relaxation, with hæmorrhage, is the remote effect of ether given half an hour before?

Dr. H. J. BIGELOW remarked that he thought Dr. J. Bigelow would have noticed the effect of ether in stopping labor-pains, had he not been in the habit of employing small doses. He felt sure that under large doses of ether uterine contractions are apt to cease, and that we are often obliged to suspend the inhalation on this account. Indeed, the wonder is, that hæmorrhage does not more frequently occur, since the largest doses are usually given just before the expulsion of the child. The muscular system yields gradually to the use of narcotics, the voluntary muscles before the organic, the uterus towards the last, but before the heart. He would observe, however, that since Dr. Storer, in his great experience, had seen but two cases in which hæmorrhage could be ascribed to the inhalation of ether, we might be sure there was no great danger from its use.

Dr. STORER said that in the cases he reported, the labors were not long, but the placenta lingered. After friction over the abdomen, contractions came on, and the placenta were expelled. Relaxation and hæmorrhage subsequently occurred. On account of its effect in delaying the progress of labor, he never proposed the use of ether to his patients in cases of natural labor, but he never withheld it if they requested it.

Dr. J. BIGELOW said Dr. Storer might settle the question by means of statistics; he could employ ether in fifty cases, and dispense with it in fifty others, and then see in which category hæmorrhage chiefly occurred. As to the propriety and use of ether, his views coincided with those of Dr. Storer. He rarely gave it, unless urged by the patient. If the woman were very importunate he would not refuse it,

and he could not say that he had ever seen any serious evil effects which could be attributed to it. He never made a patient insensible with it, if he could help it. In common cases he gave enough to take off the edge of the pain; it exhilarates the patient, and enables her to endure her sufferings without complaint. He often made the woman hold the sponge herself, and when she becomes insensible she lets it drop; and when more ether was called for, he gave her the sponge again, without pouring fresh ether upon it. He never proposed it unless the labor were severe, or unless some operation were required, but he always gave it when it was urgently demanded.

Dr. C. E. WARE said he had no doubt of the effect of ether in retarding labor-pains, and he had frequently been obliged to suspend it entirely, on that account.

Dr. BETHUNE alluded to the fact that ether was employed in turning, in order to produce relaxation of the uterus.

Dr. PUTNAM said that etherization sometimes actually accelerated parturition, by promoting relaxation and controlling inordinate nervous action, but that in the great majority of cases it undoubtedly retarded it.

In regard to its connection with uterine hæmorrhage, it should be remembered that the motor power of the uterus, though lessened, is never annulled, but remains after the voluntary or respiratory muscles have ceased to act, and it may be presumed that if there be force enough to expel the placenta there will be enough to close the blood-vessels. If this were not so, hæmorrhage after etherization would be the rule instead of the exception.

In more than 500 cases collected by Dr. Channing, there was no evidence that hæmorrhage was caused by etherization. Chloroform was administered in 21 cases by Dr. E. W. Murphy, of the London University, with special regard to its effects, and he states that the uterus contracted with its usual power, expelled the placenta, and no hæmorrhage or other indication of atony appeared to ensue. He further quotes the result of 56 cases in which chloroform was used by Dr. Denham, and after careful examination could not find one instance in which the uterus lost its contractile power.

More recently, Messrs. Sinclair and Johnston, of the Dublin Lying-in Hospital, administered chloroform to complete anæsthesia in 313 cases, and "during the seven years not a single accident took place that could be attributed to its use."

Dr. P. hoped that continued careful observations would be made in reference to a point of so much importance. In his experience, etherization had not been followed by hæmorrhage.

AUG. 13th.—*Croup; Tracheotomy; Death.* Dr. CABOT reported the following case, the particulars of which were furnished him by Dr. SEAVERNS, of Jamaica Plain, the attending physician.

Emma W., five years old, had had a croupy cough since the 16th of July, but continued pretty well otherwise, until the 23d, on which night the breathing became noisy and distressing, but this yielded to an emetic. On the evening of the 24th, about 7½, P.M., she was first seen by her medical attendant. At that time the breathing was noisy, the voice husky, and the cough dry and toneless. An examination of the fauces showed no appearances of lymph, but the left tonsil was considerably enlarged, so as nearly to touch the uvula. Nitrate of silver in solution (gr. 40 to the oz.) was applied with the probang,

and five grains of Dover's powder given. At 10½ the breathing was better, and the child slept considerably through the night; towards morning the difficulty increased, however, up to about 10, A.M., of the 25th, when tracheotomy was performed by Dr. Cabot with entire relief. Everything went on well until midnight of the 26th (some 38 hours), when the dyspnœa returned and gradually increased, until, from 7 to 9, A.M., of the 27th, it was so severe that suffocation was momentarily expected. By 11, however, there was again a decided remission, so that the child played with its toys, and apparently forgot her throat troubles till about 5, P.M. After 6, the dyspnœa increased as before, and the child became extremely agitated and petulant; but the symptoms yielded to an opiate, and she dozed a good deal, though often obliged to sit up for ten or fifteen minutes to breathe. As night came on, her strength decreased very rapidly, and the pulse, which had been for the most part pretty good, became quite feeble. After about 11, P.M., she had no marked paroxysm of dyspnœa, but gradually became more and more exhausted, till 1¼, A.M., of the 28th, when she died.

The treatment recommended by Dr. Cabot was carried out till about 7, P.M., of the 27th. The injection of the solution of nitrate of silver generally produced no great distress; but upon rising to cough, she always complained of great pain in the right chest. After that time, she was so restless and distressed that it was given up.

On the morning of the 27th, there was throughout the right chest much large crepitus, and she raised through the tube a great deal of tenacious purulent matter; in the left chest the breathing was pretty good. In the evening, however, there were in both sides, but especially audible in the right, sonorous, dry râles, with but an occasional sound of fluid in the bronchial tubes.

The opening in the trachea remained quite patent, and in some of the worst attacks of dyspnœa both tubes were removed with some apparent relief.

Dr. Cabot said he saw the child at about 10 o'clock, on the morning of the 25th. It was then struggling for breath, somewhat livid, with a rapid and feeble pulse. He decided to operate at once, as the only means of saving life, and accordingly did so, assisted by Drs. Seaverns and Robinson, opening the trachea at some distance below the cricoid cartilage. No false membrane could be seen through the opening, and none was ejected at the time of the operation. A quantity of bloody purulent mucus was coughed up, and the breathing became easy. Dr. Cabot left the child in a quiet sleep. He recommended the occasional injection of a solution of nitrate of silver into the trachea, two grains of iodide of potassium to be given every two hours, and steam to be kept up in the room.

An autopsy was had sixteen hours after death. On opening the thorax, both lungs were found firmly adherent to the parietes of the chest and to the diaphragm; the right lung was of a bright-scarlet color in points, on its surface; the substance of both lungs was sufficiently healthy. The internal surface of the trachea above the incision was pale, puffy and œdematous, with but one small patch of loosened membrane, of an irregular shape, present. Below the incision a membrane extended through the trachea and bronchi, to those parts where the tubes were perhaps one-eighth of an inch in diameter, where it seemed to terminate abruptly. A peculiarity of this membrane was,

that it was not, in its upper portion, a tube, the posterior half being wanting, but simply a flat, detached, tape-like strip, half an inch in width, until entering the smaller bronchi it became tubular. In the right lung, one or two of the smaller air-tubes were filled with pus.

It seemed to Dr. Seaverns that the absence of the posterior half of the membranous tube *might* be owing to the fact that the injections of caustic, which had always been used when the child was lying down, had trickled down that part of the trachea, and destroyed the formation of lymph.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, AUGUST 23, 1860.

MEDICAL PATENTS AND OUR NATIONAL CODE OF ETHICS.—Such is the title of an editorial paragraph which appeared in a late number of the *New Orleans Medical News*, and was subsequently copied, for want of something better, we suppose, into the pages of the *American Medical Gazette*. This paragraph sets forth that certain members of the medical profession, in all 29 in number, have violated a regulation of the American Medical Association in recommending, and advertising, a surgical instrument patented by a physician. To sustain the accusation, two clauses are quoted from the Code of Medical Ethics of said Association, neither of which, unfortunately, seem to bear upon the point, at least so far as we are concerned. The first, declaring it to be “derogatory to professional character for a physician to hold a patent for any surgical instrument, or medicine,” may call for a reply from Dr. Wadsworth, the inventor and patentee, but as we do not remember to have laid ourselves open to such a charge, we do not see how we are particularly interested.

The second clause quoted in support of the charge preferred, declares it “reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them.”

Now if our accusers had read carefully the advertisement upon which they base their charge, they would have seen that the date of the signatures appended to the certificate referred to is some time previous to that of the patent—the first being in November, 1859, and the latter in January, 1860—so that the indictment, so far as it concerns the signers, is quashed *per se*.

As for ourselves, it has always been our aim, and we hope will continue to be, to conform in everything as closely as possible to the laws of professional honor, and to the authority of the governing medical body in the country; and if in this instance an advertisement, which does not seem to be in violation of the letter, although it may be of the spirit of the clause quoted, has accidentally crept into our pages, we shall do what justice to the advertiser and to ourselves requires.

In conclusion, we cannot avoid remarking that there is an awfully trite old saying which refers to those who inhabit “glass houses,” and which might be distantly alluded to in this connection; but we forbear.

DEATH OF M. DUMAY, OF PARIS.—We regret to notice the reported death, from a dissection wound, of M. Dumay, of Paris. Who that has known the *Ecole Pratique* in the last fifteen years does not remember M. Dumay, and has not stopped to see this prince of operators demonstrate his course. How his ligatures of arteries seemed to *aller tout seul*. With what grace and dexterity did he insinuate in a *huit de chiffre* those old catlins, ground down almost to nothing; with what *chic* would he do “Chopart” or “Lisfranc,” and with how smooth a cut take off the left arm at the shoulder-joint by the “*méthode Dupuytren*.” Rumor used to say, and we believe truly, that M. Dumay was not a D.M.P.; that after repeated efforts to become one, he gave it up in despair; so for fifteen years or more, day in and day out, did he teach operative surgery, to the profit of many and the admiration of all, plodding on in the same beaten track, knowing only one thing, and in that one, confessedly without a rival. We remember his enthusiasm when a friend demonstrated a little trick in introducing sutures, which was new to him; it seemed really as if he, too, like M. Phillips (another recent sufferer from a terrible dissecting wound), when a new method of cheiloplasty was shown him, would burst into tears and kiss his benefactor.

Like the père Ribail, nephew of M. Velpeau, and his course of bandages, or old Sanson, the “stool pigeon” of the *concours*, or the old man at Clamart, who, spectacles on nose, did nothing for years but dissect something about the pelvis, nobody ever knew what (and he, too, finally died, we believe, from a dissecting wound), M. Dumay, with his course of *medecine operateire*, was a type specimen of a class of men frequent abroad, but rare enough in this country.

In these days, when Paris is out of fashion, and the *affiches* inside the gate of the *Ecole Pratique* (if the new *pavillons* recently erected have not destroyed them all) are read by fewer Americans, we have felt that, for old acquaintance sake, M. Dumay deserved this reminiscence and passing word of regret.

REGISTRATION OF DEATHS.—By referring to the reports of the weekly mortality of the city, we have been struck with the fact that many of the names given to the diseases are of so general a character as to diminish materially the value of the mortality list. We find, for instance, in one week, 2 cases of *disease of the brain*, 1 of *disease of the heart*, 1 of *disease of the kidneys*, 1 of *disease of the lungs*, and 1 of *disease of the stomach*. We know not whether this is owing to ignorance or carelessness, but we understand that the City Registrar would be glad if the causes of death could be more specifically given, and the results of registration would thus certainly be more complete.

BOOKS OF THE SYDENHAM SOCIETY—AN ERROR CORRECTED.—As a misunderstanding has naturally arisen from an accidental error for which we are responsible, in our notice of last week, we hasten to say that the Sydenham books, thus far received, comprise the first year's, and only publications of the New Sydenham Society. The set, consisting of five volumes, may be had for \$6.25 on immediate application to Dr. Salter, the Local Secretary, No. 1 Staniford St., Boston.

THE following note from a physician in this vicinity, should have appeared before, but was accidentally mislaid. It refers to a disease which has now abated, but the treatment of which must still remain a matter of much interest.

MESSRS. EDITORS,—As the attention of medical men has been enlisted in investigating the why and wherefore of the epizootic prevailing among cattle, I am induced to send you a copy of a note recently received from a clergyman in one of our interior towns, with the hope that it may interest some of your readers.

DELTA.

"I have a heifer which completed its first year the 18th of March last. In the latter part of the month previous (February), I found the animal one morning, between six and seven o'clock, breathing very laboriously, throwing its head about, stretching the neck, and evidently in great agony. Feeling certain she must soon die unless relief was obtained, I wrapped the body in thick woollens, and administered eight or ten drops of fusel oil in water, repeating the same twice before twelve o'clock, noon. At that time there was perhaps a *slight* mitigation of the distress. I then mixed two teaspoonfuls of the oil in water and gave the whole at once, with the exception of some small waste occasioned by the struggles of the animal. I did not see her again for three hours, when she appeared completely relieved. She continued to gain rapidly, and at this date, July 5th, is in perfect health."

At St. John, New Brunswick, August 10th, 1860, the celebrated Dr. Tumblety, well known in these parts, was fined £20 and costs (amounting to 30s. 6d. additional), for assuming the title of M.D., contrary to the provisions of the Medical Act.

IMPORTANT DECISION.—At a recent trial in the Muskingham county Common Pleas, the question arose as to the power of court to compel a medical witness to give testimony involving a breach of professional confidence. After being fully argued, the Court (Judge Marsh presiding) held that a medical witness could not be compelled to disclose facts confided to him in confidence, in his professional capacity. Although the statute only expressly exempts priests and lawyers from giving such testimony, we think the decision of Judge Marsh just.—*Columbus Review of Medicine and Surgery.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, AUGUST 18th, 1860.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	53	53	106
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	52.2	49.5	101.7
Average corrected to increased population, . . . . .	..	..	116
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infantum.	Scarlet Fever.	Pneumonia.	Measles.	Smallpox.	Dysentery.
13	25	4	1	1	4	3

METEOROLOGY.

From Observations taken at the Cambridge Observatory.

Mean height of Barometer,	30.089	Highest point of Thermometer,	83°
Highest point of Barometer,	30.256	Lowest point of Thermometer,	56°
Lowest point of Barometer,	29.858	General direction of Wind,	Variable.
Mean Temperature,	68°	Whole am't of Rain in the week	1.615 in.

BOOKS RECEIVED.—A Treatise on Fever; its Cause, Phenomena and Treatment. With an Appendix. By Rezin Thompson, M.D., Nashville, Tenn. (From the Author.)

COMMUNICATIONS RECEIVED.—"Diphtheria."

DIED,—At Barksdale Station, Va., Dr. C. W. Barksdale, aged 58 years.

Deaths in Boston for the week ending Saturday noon, August 18th, 106. Males, 53—Females, 53.—Accident, 1—apoplexy, 2—congestion of the brain, 2—disease of the brain (tubercular meningitis), 1—cancer, 2—cholera infantum, 25—cholera morbus, 3—consumption, 13—convulsions, 4—cyanosis, 2—debility, 4—diarrhoea, 4—puerperal disease, 2—drinking cold water, 1—dropsy of the brain, 6—dysentery, 3—scarlet fever, 4—typhoid fever, 2—gastritis, 1—disease of the heart, 2—disease of the liver (hepatitis), 1—disease of the lungs, 1—inflammation of the lungs, 1—measles, 1—old age, 2—paralysis, 3—scrofula, 2—smallpox, 4—suicide, 1—tumor (ovarian), 1—unknown, 3—whooping cough, 1—worms, 2.

Under 5 years, 61—between 5 and 20 years, 8—between 20 and 40 years, 12—between 40 and 60 years, 11—above 60 years, 11. Born in the United States, 83—Ireland, 18—other places, 5.

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No. 5.

DIPHThERIA.

By E. S. WALKER, M.D., BROCKETT'S BRIDGE, N. Y.

[Communicated for the Boston Medical and Surgical Journal.]

SORE throat, of various degrees of intensity, from simple efflorescence of the mucous lining of the throat, with very slight constitutional symptoms, to severe tonsillitis, attended with fever, swelling of the glands of the neck, and, in some instances, sloughing of portions of the tonsils, was quite prevalent in this vicinity during the months of May, June, and July. An odd feature of the malady seemed to be, that the prostration attending and following the attack was disproportionately great to its apparent severity. In two cases, partial paralysis of the legs and arms seemed to be caused by it.

During the epidemic, I attended two cases; and from their novelty to me, the rapid succession of symptoms, tending to, and resulting in death, I subjoin a brief history of them.

CASE I.—Maggie C., aged 11 years, from the history given by her parents, has generally enjoyed good health through infancy and childhood up to the present attack. Had scarlet fever, five years ago, with severe sore throat, lasting a week after the rash disappeared, but recovered from it without any of the unpleasant lesions sometimes following scarlet fever. Was attacked on the evening of May 9th with general languor, chilliness, bonesache, headache, soreness of the muscles of the neck, and fever, which her mother treated as the effects of cold, by giving a hot foot bath, and hot herb drinks.

On the morning of the 10th, she complained of sore throat, and the glands of the neck were observed to be swollen. The soreness of throat and swelling of neck grew gradually worse during the day, and she passed a restless night.

On the morning of the 11th, I was called to see her. Found her sitting in a rocking chair. Surface of the body cool and

moist. Pulse 120 to minute, small, silken. Tongue covered with a yellowish slimy coat. Urine scanty and high colored. Bowels not opened since the attack. The parotid and submaxillary glands very much swollen. Was spitting a greenish viscid saliva. Had some difficulty in examining the throat, on account of her inability to open the mouth sufficiently; but on compressing the tongue well towards the root, she was caused to retch, which brought the tonsils and soft palate into fair view. The right tonsil was completely enveloped in a smooth, grayish white membrane, which extended forwards about an inch, in front of the velum palati, and was so closely adherent that it seemed to terminate in mucous membrane; and dipping down behind the tonsil, was lost to view. The left tonsil was studded with numerous points of membrane, similar in appearance, varying in size from a peppercorn to a three-cent piece. The tonsils were so much swollen as to nearly close the entrance to the pharynx, and the whole throat, where not covered with membrane, was of a deep red color.

I made a free application of nitrate of silver (thirty grains to the ounce) to the whole throat; gave a cathartic of calomel, to be followed with tincture of sesquichloride of iron, in ten-drop doses, once in four hours; also left a strong solution of chlorate of potassa, to be used as a gargle.

12th.—Her attendants report that “the cathartic operated kindly in four hours after taking,” the evacuation, dark colored and offensive. She is discharging from her nose a brownish, watery fluid, which has excoriated the upper lip and wings of the nose. Fluids return by the nose, on her attempting to swallow. Membrane in the throat of a brownish color. Tongue dry, and a brown streak through the centre. Pulse 140. Changes her position often, from rocking chair to bed, and back. Has a haggard, anxious look. Continued restless during the day. In the afternoon had a paroxysm of difficult breathing. Several purple spots made their appearance on the neck and upper part of the chest. Died quietly, at 4 o'clock, P.M., having gone from the rocking chair to the bed, unassisted, a short time before.

CASE II. occurred in the same neighborhood.

Andrew G., aged 32 years. Has suffered from dyspepsia and constipation of the bowels for two years past, though able most of the time to attend to his occupation, that of a farmer. Commenced complaining, June 28th, of general languor, pain in his joints, and severe backache. Was feverish and restless. Took a cathartic at bed time, which operated the next morning.

29th.—Has less pain and fever, but complained of stiffness of neck, and sore throat, which growing worse rapidly during the day, in the evening I was called. Found him sitting up, with not much fever. Glands of neck swollen. Complains of dryness and heat of throat. Pulse 100 to the minute, and easily compressed, though not small. Tongue covered with a thick, cream-colored,

sticky coating. Urine scanty and high colored. On looking into his throat, the tonsils were found much swollen; and over the centre of the right, extending forwards to the soft palate, was a belt of membranous formation, about three fourths of an inch wide. The soft palate, uvula, and left tonsil, were spotted with small patches of rough, curdy-looking matter. Swabbed out his throat with a solution of nitrate of silver, forty grains to the ounce. Gave chlorate of potassa in ten-grain doses, once in three hours. Left the nitrate of silver and probang with an attendant, to be used again in the morning.

30th, at noon.—Feels better, except in his throat. Symptoms much as yesterday. Several of the curdy-looking spots have been brushed away from his throat with the probang. The membranous belt over the right tonsil is yet firmly adherent. He is spitting a greenish, offensive smelling fluid, in large quantity. Can swallow nothing but fluids, and those with considerable difficulty. Gave a cathartic of calomel. Treatment, in other respects, the same.

July 1st.—Two evacuations from the bowels, from the effects of the calomel. Is sitting up, and says he is better. Swelling of neck is subsiding. Swallows with less difficulty. Swelling of tonsils is less. The membrane over the right tonsil is detached, and rolled up for about one fourth of an inch on its anterior boundary. Surface cool and moist. Pulse 88 to minute. Same treatment.

2d.—Has had a restless night, and complains of feeling very weak this morning, but is able to get out of bed without assistance, which he did, and sat in a chair while I examined his throat. The swelling of tonsils still decreasing. The patch of membrane over right tonsil detached for about three fourths of an inch, and rolled up, leaving the surface under it smooth. General symptoms much as yesterday. Advised beef-tea to be given as freely as the stomach will bear.

A brother of the patient called on me in the afternoon, saying that he was growing worse. Dr. Shaw, of Little Falls, saw him with me in the evening.

We found the skin a little above the healthy temperature. He was restless, frequently changing his position in bed; otherwise, no change that would indicate that he was worse. Prescribed a powder of morphia, to be given at bed time if he continued restless. He went to sleep at 10 o'clock in the evening, without the morphia, and slept quietly till 3 o'clock in the morning, when he awoke and said he felt rested from his sleep. He soon after became very uneasy, without complaining of anything in particular, and continued so for about two hours, during which time his bowels were moved three times, the discharges looking, as his attendants said, like tar, and very offensive. About 5, A.M., he again became quiet, and seemed to go to sleep, but went into a comatose state,

from which he did not arouse, and died, without a struggle, at 9 o'clock, A.M.

The conclusions that I have arrived at from watching these two cases, and others of a less severe type I have been called on to treat, though not differing materially from those of others who have lately written on the subject, I will state briefly, more for the purpose of negating opinions that have prevailed in reference to it, and are still received as sound by some, than with the expectation of establishing any definite affirmative doctrines in regard to its remote causes or pathology.

All the cases I have seen occurred in farm-houses, situated on high lands, which lands are freely supplied with springs and spring brooks, and there has been no discoverable local cause in any instance about the premises. They were also in a locality where malarious fevers are never known to arise, and dysentery is of very rare occurrence. These facts exclude the idea that the disease is of malarious origin.

That it has no relation to scarlet fever, croup, or any other disease I ever saw, is sufficiently clear to my mind, for the reason that, from its onset to its termination, it is characterized by a train of symptoms that are distinct and new; and, further, it makes no discriminations in its attacks between those who have not had, and those who have had, scarlet fever. It is plainly epidemic in character, differing in this respect from croup, and the mode of dying is different from that in the latter disease. In my first fatal case, though death was preceded by some dyspnœa, there was nothing like asphyxia. In my last, the immediate cause of death seemed to be toxæmic.

Having thus briefly stated how in my opinion—formed from a limited observation—this disease is not produced, and what it is not, I will leave the affirmative of the question to those whose opportunities of investigation are, or have been, greater than mine.

August 13th, 1860.

THE BED CASE,

OR AN IMAGINARY AFFECTION WHICH CONFINES THE PATIENT IN BED, AND IS PRECEDED OR NOT BY DISEASE.

BY WALTER CHANNING, M.D.

[Continued from page 80.]

The Pelvic Viscera.—The womb and its appendages are particularly in view in our notice of these organs; though from the vicinity of the rectum and bladder to these, they will also demand regard. Some one says that a woman is what she is, on account of the womb. It is very certain that her pathological condition gets much of its character and importance from the state of the

womb and appendages. There has been at times a disposition in the profession to ascribe many or most of the chronic affections of women to various disturbances in *place, organism* and *function*, of the womb, with which such affections are not unfrequently associated. Their precise relations, however, have not been always sufficiently accurately traced, and certain transpositions of causes and effects have been made which must often have led to useless if not injurious practice. Modern discoveries have done much to diminish the chances of such error. It is in regard to the anatomy, and especially the functions of the great nervous centres, when acting in perfect health, and particularly when disturbed by disease, that we have obtained knowledge, light, which is slowly removing the obscurity which wrapt up, as by an impenetrable veil, the true pathology of the womb and its appendages.

The Bed Case has its origin frequently, I might almost say always, in uterine trouble. How rare is it to see this disease in the male! I have not met with the first case. We meet with it in the married and in the unmarried female. I have more frequently seen it in the latter. In some striking cases it has followed labor. This may have been protracted and severe, or otherwise. The "getting up" has been slow. Lameness has been discovered in attempts to leave the bed. This has made rest a necessity in severe cases, and a choice in others. Rest is often prescribed where the patient thinks it quite unreasonable, and when this is the case the rule is not always recollected. This lameness may depend on many circumstances. The ligaments which keep the bones of the pelvis together, may have been put strongly on the stretch by the labor. The relaxation which the joints of the pelvis undergo during pregnancy, as a preparation for delivery, it is easy to understand is a condition which may be followed by such lesion of the connecting ligaments as will produce the lameness referred to. By premature attempts to get about, the uterus, not yet returned to its size and weight in the unimpregnated state, and its natural supports being still weak or relaxed, may undergo so much dislocation as to lead to pain in the erect posture, which pain at once subsides on horizontal rest. At times the lameness after delivery follows the severe pressure to which the back has been subjected to relieve the suffering of uterine contractions, or rather of the pressure of the child or the presenting part during such contractions, sometimes referred to the hollow of the sacrum, sometimes higher up, or to the spine.

However lameness, or suffering on motion, or in the sitting or erect position, may be produced by, or after labor, it soon becomes an obstacle to motion. It is properly yielded to at first with a view to relief, or rest is prescribed as a remedy. Much comfort is experienced. Rest is continued. At length, functions which depend upon exercise are disturbed. The mind is depressed. Appetite fails, and

more or less rapidly a state of invalidism is produced, which makes the state of the woman most miserable. Emaciation occurs. The milk disappears. We may have ceased to visit the patient, so generally was she doing well in the first week or fortnight after confinement. We are called to see her, and are struck and greatly surprised at the changes which have occurred. We prescribe such remedies as are indicated, and especially exercise. We are told that it is impossible to try this remedy—that pain, lameness, weakness, are such that almost the least attempt to move, certainly to sit up, produces an agony that cannot be borne. We see our patient as often as we may think necessary. No improvement occurs, or only some transient amendment. Our visits become more and more rare, and at length very much lose their professional objects and character, and the Bed Case is in no long time present, with all that belongs to it. Whatever, then, tends to produce local embarrassment, and to interfere with or prevent motion in the puerperal state, may be followed by the disease. Continued rest diminishes the power of the muscular system—disturbs the relations between voluntary muscles and the will, so that in time there is present not only pain on attempting motion, but absolutely want of ability to move. The nervous system falls into the condition of its organs, and from disuse becomes disturbed and enfeebled.

What has now been said of the puerperal state in connection with the Bed Case, will aid us in tracing other conditions of the uterine system in their relations to the same disease. The connection may be less obvious because there is more or less complication with what may not always be reached, or which may seem less important than it really is. Thus, I have known paroxysms of distress in the Bed Case to be directly produced by moral causes; as may be those of insanity by referring to some one subject; and in other cases I have found motion impossible or intolerable because of an indescribable distress referred to some point in the hollow of the sacrum, or low down, or midway, or high up in the back, the true explanation of which, can only be found in late discoveries concerning the functions of the nervous system.

Spinal Irritation, so called, is not unfrequently a grave trouble in the Bed Case. This differs from common pain in the back, and which may, as just remarked, be the consequence of mechanical causes. This last rarely produces suffering unless motion be attempted. As a symptom of the Bed Case, spinal irritation deserves special attention. It does most to produce, and infinitely the most to perpetuate. To it have been addressed all manner of treatment, and which treatment has, for the most part, only done harm. Leeches, blisters, caustics, issues, *et id omne genus*, have been resorted to again and again, and by the year too, in the same case, and with an ill success which might have been well predicted but for the pathological mistakes concerning the affection—I cannot call it disease—the spinal affection itself. Then again, relief

of this trouble has been sought in various mechanical arrangements, which have done as much good, and no more, than have the local appliances just partially enumerated. The object of these instruments has been to fix the spinal column, to take from it the weight, or a part of it, of the trunk, to straighten it if bent out of line, and to enable the patient to take exercise. It has been found that in exact proportion as the instrument has done all these things, perhaps only excepting the last, so much the more injurious has the instrument been. The more perfectly it has fixed the back and relieved it from pressure, so much more harm has come of its use. And why? Because it has substituted for natural supports—which under wise direction will act, and act truly, viz., the *living muscles*—it has substituted, I say, for these, dead matter, which has no power of motion, and which cannot get such power from the muscles, as the very instrument itself, which is looked to, to do so much good, destroys, or suspends muscular power altogether.

In spinal irritation the treatment has hitherto proceeded on the ground, first, that the *spine is diseased*; second, that the *muscles are diseased*; and, third, that the *spinal column* itself, its *bones*, its *intervertebral substance*, are diseased.

1. The *spinal cord is diseased*. The proof? Tenderness or pain on pressure in some one part; in two or more parts; or through the whole length of the column. This pressure was much in vogue sometime since, and as it was sometimes performed, the pain was not a mystery. There was a will, and a correspondent force, in the pressor, which gave to his manipulation a determinate character which led at once to the audible expression of a sensitiveness, if not tenderness—for the words do not in physiology or pathology mean precisely the same thing—to an expression of suffering as natural as it was loud. A benevolent diagnost substituted a gentler mode of diagnosis. This consisted in passing up and down the spine a bit of sponge, or of rag, which had just been dipped in hot water. If the water were hot enough, pain might be looked for.

Now there was no use in these methods—the pressure, the punch, or the hot water—that is, as far as the spine was concerned, for it is notorious, at least abundantly well known, not only that pressure or heat will produce uneasiness, pain, and what not, over the spine in such cases, *but over the whole back* also, nay, almost over the whole body. A firm pressure of the radial artery for the pulse, or for learning its strength, as well as its frequency, will as surely give pain, as pressing or scalding the integuments over the spine. How often have I seen tested, and tested myself in this way, the question of spinal irritation, as a cause of the pain on motion, &c., complained of by the Bed Case having this symptom. Pressure has been made on each side of the spine, above and be-

low the scapula, over the sacrum, in short, everywhere, and uniformly with like effects.

Now in these cases there is no disease of the spine; there is only a perfectly natural tenderness under the circumstances. There is functional or organic disease of some tissue or organ far away, it may be, from the spine. With these there is a nervous connection. The reflex function contains and explains the whole causation. The spine, and every other texture to which this function can reach, tells the whole story. Let it here be borne carefully in mind, that the *disease may not be in its apparent seat*. Especially let it be borne in mind, that remedies applied to the spine may do harm exactly in proportion to their power, and that protracted disease and increased suffering must be their results.

2. The *muscles are weak*, it is said, *and must be supported*.

There is hardly less truth in this defence of the popular treatment of spinal irritation, than for the earlier leeching, blistering, and caustics. The muscles are not weak. They are unused to motion, or to contraction for motion. They have long been out of use, for the Bed Case is not the product of a day. They have ceased to obey the will readily, and without an effort. They have rested wrongly, and they rebel when called on to work. In a word, they are lazy; the mind, too, is lazy, too much so for hearty, or even ordinary volition. Here is the whole story. We shall see in the sequel that when the occasion—the “hour,” if not the “man”—comes, these diseased muscles of the back, and of the legs too, will act, and accomplish everything that the present demand, however great, may require. The “Arise, take up thy bed and walk,” will be enacted before our very eyes. Let it be remembered that in the Bed Case, the muscles of the spine are no more diseased than they are anywhere else, and require neither brass, iron, whale-bone or leather, to help them to perform their proper uses. They are to be exercised. They have been still for months or years. They must be moved. *Somebody* must move them. The patient, who has been kept in bed that recovery might be found in rest, is incapable of self-motion, or to apply the remedies which her case mainly requires. Balfour’s method I suppose now pretty much out of fashion, which rules physic as it does everything else—Balfour’s method will do much to put into use neglected and useless muscles. They can be exercised thus with the very best benefit. Look at the success of practitioners out of the profession, medical “outsiders,” who set bones by instinct, and rub, and scrub, and knead, old effete muscles into the best uses. We of the regular file may learn much from these, who so often eclipse, displace and replace us; and bring a true science into harmonious action with a so-far wise empiricism. We are then to work with and for muscles, and to bring them into independent action. Above all, we are to have, and to feel that we have, a just influence with the will

of the patient, for in the will, or out of it, is to spring true power as well as occasion for action. I have thought, sometimes, that the "outsider" was clean ahead of us in this matter. The muscles are, thus, to be taught, as honest industrious servants, to do their own work; and when we have taught them this, and how to do it, we may e'en let them take care of themselves.

We are told, as the latest defence of the brazen and iron instruments for weak back, that with the apparatus, exercises of various kinds may be employed, as of the arms and legs. This is true, and it may happen that the tone given by action to certain muscles may come to be distributed to the system generally, and so reach the stomach, liver, bowels, and even the brain, and thence be communicated to the muscles, "though thrice locked up in steel," of the back and trunk, and gradually put the whole machinery in harmonious action. For myself, I should much prefer the other, which is the more natural, and hence should be the shorter method with these recusant muscles, and make them work for themselves.

3. *Organic Lesions of the Spinal Column.*—Alleged muscular weakness, accompanied with more or less suffering, even in the horizontal posture, has been spoken of as a frequent attendant on the Bed Case. Another condition deserves special notice. This is the change in shape, or rather *direction*, which the spine sometimes manifests. Lateral and other curvatures may exist, and give an additional feature to our already complicated, or very expressive malady. This may be confounded with curvatures or deformities which have for their causes various lesions of the spine itself. It is very important that the diagnosis here be correct.

When lesion of structure exists, we have an exaggeration of symptoms which no merely functional disturbance imitates. In the first place, the *constitutional* symptoms are very strongly marked. The general features of a very grave disease are present. Emaciation is declared. A febrile state, it may be, marked by daily paroxysm, may exist. The heat, pulse, complexion, are striking. The latter gets, and keeps, that dark, thick, sallow, if the expression may be allowed, *dirty* hue, which is so distinctive of malignant disease. Such disease of the uterine system is remarkable for this appearance of the skin. Positive rest in the horizontal posture is not only demanded for comfort, but any other position becomes absolutely intolerable. In such condition of the general system, the effect of organic spinal disease, we have curvatures, and angular projections, with shortening in height, which occur under no other circumstances. I have seen nothing of this kind in the genuine Bed Case, and there is nothing in its rise, progress, and termination, which at all allies it with malignant spinal disease.

Now it is perfectly well known that curvatures may exist without any organic lesion of the spinal column. They occur in the Bed Case, and are a source of much mental uneasiness as well as

physical suffering. They are thus matters of much interest in the study and treatment of this case.

To what are such curvatures owing?

First, to muscular action. This may be accidentally induced. The weight of the body, the habit of lying in one position, disease, these may produce curvature, each of them bringing into action certain muscles, and allowing others entirely to rest. Various occupations which require fixed positions of the body—in early life long confinement in the same posture, as in schools—rapid growth—hereditary weakness of organization. The contracted muscles constantly acquire strength of action by this state being continued. They grow hard; strongly developed, and resist all attempts to overcome their contractions. It is not a passive resistance, or rest in the existing state of things which relate to this muscular condition, of permanent contraction on the one hand, and of relaxation on the other, or to the resulting curvatures. More than one curvature generally exists. Curvature may begin without notice, being slight, or lost sight of in the midst and pressure of other symptoms. The patient continues to sit, to stand, to walk, with a view to strength. In the mean time the curvatures increase, and are at length discovered. The muscles have acted in perfect harmony with the circumstances. Change of place has been made in the spinal column, which in health its muscles support, by infinitely complicated contractions, and which they now distort by truly functional, but irregular contractions. Forces acting in various directions, and different forces, produce their effects on the spine, which become permanent by muscular action. In their disturbed functions, produced by disease of remote organs, the muscles may act to the same end where no force is directly in operation to distort the spine. This may and does happen in a state of permanent recumbency. But disease of organs in the neighborhood of the spine, in the organs of the chest or abdomen, may come to produce curvatures, very much by its own agency. Thus aneurisms and other tumors may by pressure produce absorption of the bones of the spine, and various lesions of its other tissues, and the resistance to irregular action of the muscles being removed, we shall have curvatures or projections of different kinds, and in different places, induced.

A case was formerly under my care, in which a curvature—there was only one—was directly produced by disease. This was a young man of about 16, who had rapidly reached great height, and who in November, 1850, had severe pleurisy, with very large effusion into the left pleural cavity. I did not see him till midsummer of the following year, and found him a perfect cripple, passing most of his time in bed, and suffering severely from pain in various parts of the trunk, mostly, however, referred to the seat of the pleurisy. Upon examination, the physical signs declared the disease. The left chest was larger than the right, pro-

tuberant; the heart was felt strongly pulsating in the right chest, being forced quite out of its natural position. No sound or impulse in the ordinary seat of the organ. Strong lateral curvature to the right side.

Measures were adopted for the removal of the effusion, which so far succeeded as to diminish and nearly remove the fulness of the left chest, and along with this the curvature of the spine gradually lessened, so that at length it was not to be compared with the distortion which existed when the treatment was begun.

This case is brought in here, because it shows, in the first place, how readily the spinal column yields to mechanical forces, even when laterally applied; and especially how ready it is, in some cases, to recover its natural direction if such forces are removed. The whole muscular apparatus of the anatomical region implicated in the young man's disease, was disturbed both in place and in function, and the curvature seemed as much fixed for life, as in other cases. But the cause of the dislocation, for such existed, the column being clearly *out of place*—this cause being removed, it well nigh recovered its natural direction, and promised to do this completely. As the case passed out of my hands in September, I am not able to state the whole result. In the second place, this case shows that no permanent or organic muscular lesion occurred in consequence of the unnatural position into which the muscles were forced by the curvature of the spine, and that they were ready at any moment to regain their natural situations and functions whenever the spine became straight. It is to this point I will ask particular attention in the Bed Case which is accompanied by lateral curvatures. Guerin taught the same thing in the remarkable case in which curvatures were removed by the division of dorsal muscles in a space of time hardly credible, and certainly unequalled by any other experience. In Guerin's case the muscles returned to their place, on dividing their tendons, with explosions which were audible at some distance. In a Bed Case recently under my care, and in appearance the most hopeless one I have met with, the right lower extremity had gradually become contracted at the knee and pelvis, especially at the former place, as completely as I have ever found it. The tendons in the ham were hard and sharp, and resembled inorganic cords, ropes, more than anything else. It seemed impossible that motion should ever again be manifested by this limb. Upon attempted extension, exquisite pain was complained of. The limb and whole frame were completely emaciated.

After a few weeks' use of pressure, of rubbing and kneading the muscles of pelvis and limb, this contraction gave way. The limb could be extended, and at length the will of the patient could control its motions. In no long time the perfect use of the limb was acquired; next, of the whole body, and finally recovery.

[To be continued.]

PRACTISING MEDICINE WITHOUT A DIPLOMA.

It is stated in the *St. Louis Medical and Surgical Journal* that during the last session of the Legislature of Missouri, a bill was introduced into the Senate by Mr. Rain, declaring it illegal hereafter to practise medicine in that State without a diploma from a regular medical college, or else a license from a regular board of examiners. It also provided for the appointment of a board of examiners in each county in the State, whose duty it should be to pass on the qualifications of undergraduates, and grant licenses to such as are found worthy.

“The penalty attached to this bill was to debar those who fail to comply with its provisions, from collecting their bills for medical services by law, in any of the courts of the State, and subjecting them to other disabilities therein mentioned.

“This bill passed the Senate, and only failed to become a law from the fact that in the hurry of adjournment it was not reached by the House, owing to the confusion growing out of the squabble over the railroad question. It is therefore fair to presume that it will be taken up and enacted into a law at the approaching session of the Legislature.

“We allude to this subject now, for the purpose of calling to it the attention of those who are practising medicine without diplomas, in order that they may take timely measures to place themselves in a situation in which they will not be injuriously affected by such legislation.

“There are doubtless in the State of Missouri, as elsewhere, many worthy and intelligent practitioners, who have never taken a regular degree in any medical college; but having commenced the practice after attending a single course of lectures, have, from the force of circumstances, neglected from year to year to complete their studies, but without any intention whatever to continue in this equivocal position, and who all the while feel and acknowledge that they are acting contrary to their own convictions of duty. Besides these, there is also a large class of individuals engaged in practising physic, who, in the judgment of the largest charity, cannot be regarded as either worthy or intelligent—ignorant persons, who, without education, and without the least qualification, have undertaken to discharge the responsible duties of the physician simply because there is no law in existence prohibiting them from so doing. There is yet another large class, embracing the whole herd of quacks and irregular practitioners—from the ‘small pill gentry’ to the root doctor—who are practising upon the credulity of the public, and habitually scattering death and destruction in their path. It is to protect the community against the ravages of these two latter classes, that Mr. Rain’s bill is mainly designed; and it cannot be denied, that, if faithfully carried out, it would have a most salutary effect. We therefore commend this subject

to the attention of our readers in this State, with the simple remark to those respectable practitioners who are obnoxious to the provisions of the proposed law, that a word to the wise is sufficient."

CAFFEINE AS AN ANTIDOTE TO THE POISONOUS NARCOTISM
OF OPIUM.

BY H. F. CAMPBELL, M.D., SAVANNAH, GA.

MONDAY, Oct. 10th, 1859, 8 o'clock, P.M.—We are called in haste to Mr. F. H. T., aged 24 years, who, it was said, had taken laudanum, and was in imminent danger from the effects of the drug. We found the patient in the clerk's office of one of the hotels of this city. He was lying on a sofa, with his head supported in the lap of a friend. His respiration was very slow, though not counted at the time—pulse full, but of nearly normal frequency—he was completely insensible—tongue and lips purple, and muscular system greatly relaxed. It was positively known that he had taken, in a fit of temporary depression, over *one ounce and a half of laudanum*, nearly an hour before the time of the present visit.

The condition of the patient was so alarming that we *began the treatment* by the pouring of cold water on the head till the stomach-pump could be applied—for, on attempting to introduce the tube into the œsophagus, respiration appeared to cease altogether—the entire muscular system was so completely relaxed that the tongue hung out of his mouth, and was pushed about by the end of the stomach-tube, in certain positions, folding back into the fauces, and apparently obstructing respiration. The attempt to use *emetics* was of course out of the question. The continued use of ice-water upon the head, and the occasional resort to artificial respiration, in a short time improved his condition a little—a very little—and we were willing to introduce the stomach-tube. This was effectually applied; large quantities of tepid water being repeatedly introduced into the stomach and again pumped out. Laudanum was detected both by its odor and color in the fluid first discharged from the stomach. At the end of an hour, his condition becoming apparently more urgent than before the use of the stomach-pump, he was taken from the clerk's office to a room on the second floor of the hotel, where he was undressed and placed in bed, and the application of ice-water to the head was resumed.

12 o'clock, midnight.—The condition of the patient was now decidedly worse than it had been at any previous time; the surface was cold, and purplish from imperfect aeration of the blood; the muscular system, if possible, more relaxed than ever; the respiration, fearfully slow, when counted, by the watch, was found to be *but four to the minute*. The intervals between the inspirations were now irregular, and each time we had to resort to shaking

and slapping the patient to provoke the automatic action of the respiratory muscles, and to raising him up suddenly to the sitting posture, for the same object. The tongue had to be constantly pressed forward with the fingers to prevent its falling back and obstructing the opening of the glottis. The imperfect and irregular action of the heart became now more alarming than ever. It was found that, in the reclining position, this symptom was more alarming than when the patient was placed in the sitting posture. Several times the intervals between the beats of the pulse led us to fear that the patient had expired, but, on elevating him, the action of the heart became more regular. He was now kept in the elevated position, and not allowed to recline, except for a moment at a time, for fear that he would die immediately. Ceaseless efforts were now necessary on the part of his attendants to provoke the respiratory movements. Surrounded by his friends, several of whom were remarkably self-possessed and indefatigable, not a moment was allowed to pass without some effort, as by shaking, compressing the chest, &c., to excite inspirations. No time was now to be lost—but our best efforts at exciting respiration began now to fail to have any effect, and it was evident that *artificial respiration* was now the only possible hope for the patient. This measure, under the circumstances, was a natural suggestion, but for reasons sufficiently apparent, it seemed impossible to carry it out in the present case; most of the ordinary means of effecting artificial respiration seemed to us impracticable, on account of the delay involved in their performance, and Dr. Marshall Hall's "Ready Method" involved the horizontal position, in which situation, it was clear to the minds of all present, the patient would die immediately.

Artificial Respiration in the Sitting Posture. 1 o'clock.—Under these circumstances, we devised a method of artificial respiration which was well adapted to the situation of the patient—indeed, the only one possible—and which we do not remember to have seen reported anywhere in the writings of any one on this subject.

The patient was supported in the sitting posture, by an assistant kneeling on the bed at his back and holding his head erect between his hands; two other assistants standing on each side of the patient now took charge of an arm each, holding the limb firmly at the elbow and upper part of the fore-arm; the tongue was now pressed down by the handle of a spoon, or the fingers introduced into the mouth; the assistants having charge of the arms were now directed to elevate these limbs simultaneously, carrying them above the head at an angle of about forty-five degrees, and dragging upon them so as to slightly lift the patient; the arms were then depressed and brought down close against the sides of the thorax so as to compress the chest.

The effect of these movements was the following:—At each at-

tempt at lifting the body by the arms in this way, forcible *traction outwards* was made on the walls of the chest, through the pectorales major and minor muscles, the serrati and parts of the two latissimi dorsi muscles—giving rise to expansion of the walls of the thorax; the air was thus caused to enter forcibly into the lungs, and thus *inspiration* was completed. The arms were then brought steadily down, and pressed against the sides of the thorax and abdomen—compressing them and expelling the air forcibly from the lungs and effecting *expiration*.

Under the use of the artificial respiration, the appearance of the patient was much improved. The color was restored to the face, the lips became redder, and the countenance more natural, though the relaxation of the muscular system was by no means lessened; if the head was left unsupported for an instant, it fell forwards as suddenly and forcibly as that of a dead man. The artificial movements were continued for more than an hour, and though the color of the patient was improved and the heart's action became normal, still when they were omitted, there was found no improvement in the natural respiration, these being still *but four times in a minute*, as before artificial respiration was applied.

We now felt the necessity of adopting some means of introducing a stimulant or anti-narcotic agent into the system. *Strong coffee* naturally presented itself to our mind, but the only preparation we could obtain at that time was a rather weak infusion left from the supper at the hotel. It was clearly impossible for the patient to *swallow* anything, and we did not think it advisable to run the risk of introducing the stomach-tube in his present condition; we therefore called for a syringe, but the weakness of the coffee caused us to hesitate about using it, when, fortunately, the idea of *caffeine* occurred to us, and we sent immediately for that preparation. The artificial respiration was then energetically resumed, in order to prepare the patient for being placed in the horizontal position. A small quantity of the caffeine was rubbed upon the tongue and to the inner surface of each cheek. The patient was then laid upon his side, *and an injection of the coffee, with a large quantity (afterwards ascertained to be twenty grains) of the caffeine dissolved in it was administered by the rectum*, with a common syringe. The patient was then immediately raised again to the sitting posture, and the artificial respiration resumed.

In less than *half an hour*, we perceived that occasionally, between the artificial movements, the patient would effect a *natural inspiration*; these became more frequent, and soon rose to eight in the minute. He was then laid down, and the artificial respiration omitted. The assistants, however, were directed still to remain on the bed, and to retain their hold on his arms, that they might resume their efforts at any moment. An hour had not elapsed from the administration of the injection, when the patient, to the astonishment of all present, *forcibly jerked his left arm from*

the assistant ! (which was the first action of the voluntary muscles he had performed), and immediately began to twist himself in bed, and told those about him, angrily, "to let him alone !"

From this time he did not again sink into the comatose state, and the relaxation of the muscular system did not return. The respiration became more and more natural, but he remained drowsy, and efforts were continued, occasionally, to prevent his remaining too long asleep.

The condition of the patient during the remainder of the night (from 2 o'clock till day-light), was very peculiar; his eyes were heavy, he seemed greatly inclined to sleep, and occasionally would snore a little, but yet he appeared quite cognizant of everything going on around him, and of all the remarks made by his attendants; he had great repugnance to being held or touched. During the earlier part of the narcotism, one of his friends, a young man, tried the expedient of tickling him on the ribs and lower part of the abdomen, with the hope of arousing him: then, the tickling had no effect whatever, but now it seemed to produce the most painful annoyance, and vexed him beyond all control. The measure was advised, nevertheless, to keep him from falling asleep. He would lay apparently asleep, but before the hand could reach the surface, he seemed to be aware of the intention, and would select the offender from the whole crowd of his attendants, and aim the most angry blows at him with great accuracy; and, finally, on one occasion, before he could be restrained, he jumped out of bed and followed him to the head of the stairs, threatening to shoot him if he thus annoyed him again.

We left him at day-light. His drowsiness at that time was not very marked.

10th.—We called at the hotel at 10 o'clock, A.M., to see Mr. T., and were informed that he had "gone home to his own residence, nearly a mile distant, at the lower part of the city."

12 o'clock, M.—We were called in haste to see our patient. Found him in a most excited condition; he seemed somewhat alarmed, his face was flushed, his eyes presenting an unusual brightness; he complained of headache, great restlessness, and the surface was covered with a profuse perspiration; the pulse was full, quick and frequent. He stated that he had had an alarming attack of a nervous character, which he referred to irregularity and palpitation in the action of the heart.* This had subsided, however, after taking a stimulant, and his condition was such as just described. Prescribed the application of cold water to the head, and that he remain quiet at home till his excitement had subsided. He rapidly recovered, and was well in a few days.
—*Southern Med. and Surg. Journal.*

* We would here state that we would not advise the administration of the caffeine in such large quantity, viz., twenty grains, as we used in the above case. Did the occasion occur again, we should use repeated doses of five or ten grains, till the desired effect was produced.

CONGENITAL ABSENCE OF THE AURICLE, AND MALPOSITION OF THE EXTERNAL MEATUS.

THERE is at the present time, under Dr. Chowne's care, at the Charing-cross Hospital, an extremely curious and interesting case, which we desire to place on record. It is in the person of Emily D—, aged sixteen years, but extremely small for her age, who was admitted, on the 5th of June, for hæmoptysis and derangement of the general health. She has the appearance of having always been a delicate and deformed child; and although intelligent, the forehead projects backwards, whilst the facial aspect is prominent. Her features strongly resemble those of the Astec children who were exhibited some years ago in this metropolis. Independent of her ailments, she has a malposition of her left ear forwards, to the extent of two inches more than the normal right ear, and the left auricle is wanting. Mr. Harvey mentions, in his useful and practical work on "The Ear," that a total absence of the auricle is rarely met with, but that it is sometimes replaced by a mere fold of skin. This proves to be the case in the present instance, for though the great bulk of the auricle is wanting, through some congenital deficiency, there is a small fold of skin which crosses and nearly obliterates the external meatus, so that it is wholly invisible to the eye, except on careful examination. The fold of integument (which is the residue of the external ear), although small, is apparently divided into two portions, one of which is the remains of the tragus. The course of the auditory canal, or external meatus, is most probably in an oblique direction, backwards and inwards, and it is reasonable to assume that it is much longer than its healthy fellow on the opposite side. Whatever abnormal condition may be present, however, whether in shape, direction, length, calibre, or curves of the canal, the defective organ still retains its functional power, although, perhaps, not to the same perfection as the other ear. There can be no doubt that the transmission of sonorous undulations is modified by the absence of the auricle and the position of the meatus, whatever that may prove to be. The malformed ear has the appearance of having been cut off with a sabre, and a portion of the integument allowed to remain behind.

The present example affords much food for speculation as to the cause of the deformity during intra-uterine life, more particularly as it is in a part of the economy not usually influenced. The entire temporal bone must have become altered in shape and position, and it suggests the question whether it may not have been the result of injury at a very early period of gestation. The case forms a very striking contrast to one under the care of Mr. Birkett, at Guy's Hospital (already recorded in our pages), in which a child had two rudimentary ears growing from its neck, besides the two normal ears in their natural position.—*London Lancet.*

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, AUGUST 30, 1860.

HYGIENE AND PHYSICAL EDUCATION.—The Trustees of Amherst College, at their late meeting, established a new Professorship, under the title of *Hygiene and Physical Education*. This is an advanced step in the right direction. We are not aware that any such department of instruction has ever before been connected with any of our colleges or higher educational institutions. Hygiene implies more or less instruction in Physiology and Anatomy, as well as in the use of all those means that are requisite for the preservation of health or prevention of disease.

The health of students, while pursuing collegiate studies, is of no small consequence; but, when it is considered that the effects of these four years' study upon the constitution and physical habits, determine in a great measure the amount of one's happiness and usefulness through life, the subject assumes an importance of the greatest magnitude. How many students, with scarce any knowledge of the laws of life and health, and having no one to guide or instruct them in such matters, earnestly intent upon securing the highest possible standard of scholarship, break down their constitutions and sink into premature graves! Gymnasiums may be founded, provisions may be made for ball and cricket playing, as well as other games, and even hours may be set apart for those exercises, but, unless they are reduced to some regular system, and all are obliged to resort to them—the same as other college exercises—under the living teacher and guide, such arrangements fail essentially of accomplishing the objects intended. The laws of physical exercise, in their relation to the proper digestion of food, to the full development of the lungs, and the healthy action of the brain, must be *understood*; otherwise they will not be obeyed. Books expounding these laws in the clearest manner, and with the most positive sanctions, are not sufficient. So in reference to general directions as to diet, ventilation, sleep, bathing, &c. For the *practical application* of those laws and directions, the instruction of the *living teacher* is indispensable.

No one but a physician can realize fully the importance of such a department, and no one but a thoroughly-educated medical man is competent to preside over it. In this respect, the Trustees of Amherst College showed their wisdom, by appointing to this Professorship, Dr. John W. Hooker, son of Worthington Hooker, M.D., of New Haven, who, besides being a graduate of Yale College and Medical School, has availed himself of the best advantages, both in Europe and in this country, for perfecting himself in medical science. Such a department of instruction cannot fail of proving highly successful and popular, and other colleges will soon find it for their interest to follow in the train of Amherst.

THE HUNTER MEMORIAL.—By a vote of the American Medical Association, passed at its late meeting, the undersigned were chosen a committee of one from each State represented, to fulfil the object of the following resolution:—

“*Resolved*, That it be recommended to the different States to collect subscrip-

tions of not more than *one dollar* each from every regularly educated physician, to aid in the erection of a monument about to be placed in Westminster Abbey to the memory of John Hunter—all moneys collected to be forwarded to the Chairman of the Committee hereby appointed."

Before proposing the plan of operation, the Committee deem it appropriate to relate, very briefly, the origin of this vote.

It appears that the remains of John Hunter have long slept in obscurity in the vaults of a comparatively unknown church in London. In February, 1859, the English government determined, as a sanitary measure, to close these vaults forever. An ardent admirer of Hunter's genius and labors, knowing this intention, brought the subject to the notice of the medical profession of England. Great interest was aroused, and with the hearty coöperation of the Dean and Chapter of Westminster, the remains were re-interred March 28, 1859, with fit ceremonials, under the pavement of that old Abbey, where are gathered so many of the great of the Anglo-Saxon race. A subscription was likewise opened to defray the expense of a fitting and permanent memorial to the memory of our illustrious associate.

As the medical profession of America claims to honor John Hunter and to regard him as one of its greatest men, it is proposed to obtain one dollar from every regularly educated physician in the United States, who cordially agrees to the above estimate of Mr. Hunter, and who likewise believes that it is well to cultivate friendly relations with our medical brethren in Great Britain.

The autograph names of all subscribers will be arranged in a volume, to be deposited in the Library of the Hunterian Museum in London.

It is impossible for the Committee to decide upon any uniform method of obtaining subscriptions. That decision will be left to the judgment of the individual members of the Committee in their respective States. Massachusetts, through its State and District Societies, has already subscribed, and the names of the subscribers have been enrolled in books similar to that now sent to you. This would seem to be a good method where such societies exist. Where none do exist, and also in large cities, it would perhaps be well to employ a collector to present the subject to the profession, the expense to be deducted from the amount subscribed—unless, as has happened in Massachusetts, a few individuals choose to meet that extra expense. It is hoped that on or before the next meeting of the American Medical Association at Chicago, a report may be made. The individual members of the Committee will please remember this date, and also that, according to the terms of the vote by the Association—all money must be sent to the Chairman of the National Committee.

(Signed by)

HENRY I. BOWDITCH, Boston, Ms.,
Chairman.
 AMOS NOURSE, Bath, Me.
 GEO. B. TWITCHELL, Keene, N. H.
 CHARLES CLARK, Montpelier, Vt.
 G. L. COLLINS, Providence, R. I.
 CHAS. HOOKER, New Haven, Conn.
 HENRY D. BULKLEY, New York, N. Y.
 WILLIAM ELMER, Bridgeton, N. J.
 JOHN L. ATLEE, Lancaster, Penn.
 JAMES COUPER, Newcastle, Del.
 C. C. COX, Easton, Talbot Co., Md.
 J. B. McCaw, Richmond, Va.
 CORNELIUS BOYLE, Washington, D. C.
 JAMES H. DICKSON, Wilmington, N. C.
 H. R. FROST, Charleston, S. C.

R. D. ARNOLD, Savannah, Ga.
 J. C. NOTT, Mobile, Ala.
 G. A. NOTT, New Orleans, La.
 W. G. WILLIAMS, Rodney, Miss.
 J. B. JOHNSON, St. Louis, Mo.
 J. B. LINDSLEY, Nashville, Tenn.
 R. J. BRECKENRIDGE, Louisville, Ky.
 J. W. RUSSELL, Mt. Vernon, Ohio.
 A. B. PALMER, Detroit, Mich.
 CALVIN WEST, Hagerston, Ind.
 PATRICK GREGG, Rock Island, Ill.
 D. L. MCGUGEN, Keokuk, Iowa.
 J. B. DOUSMAN, Milwaukee, Wis.
 D. W. HAND, St. Paul, Minnesota.
 O. HARVEY, Placerville, Cal.
 F. G. MCGAVACK, Pecan Point, Ark.

HAY-MOW CASES. *Messrs. Editors*,—Will you allow me to make some corrections and additions to the above cases that appeared in the last number of the JOURNAL. In Dr. Barnes's case, the history of which was sent to me at my request, the accident happened nine years ago, and the subject of it is now 23 years of age. In Case II., for pitchfork, read pitchfork handle; and in Case IV.,

though the point of the hook passed on, in the abdominal parietes, the barb only just entered the body of the child. Case VI. not being a hay-mow case, the number should have been omitted. It should also have been stated, that it was Dr. Blake's specimen of calculus from an ox, of which the analysis was reported by Dr. Bacon in the JOURNAL for August 16th. Yours, &c.,

Aug. 23d, 1860.

J. B. S. JACKSON.

MESSRS. EDITORS,—In your issue of August 9th, there appears a note from Dr. Thayer, and also an editorial notice of the report of the Semi-Annual Meeting of the Vermont Medical Society, which calls in question the faithfulness of the record. The report of the proceedings in the paper, a copy of which I sent you, was made by myself, in accordance with the request of the Society, and is *strictly correct*. If further evidence is necessary to prove the faithfulness of the record, I would refer you to Prof. Phelps, of Dartmouth Med. College, and to Prof. Perkins, of the Med. Department of the University of Vermont, both of whom were present. In copying the proceedings for the press from my record-book, I added in parenthesis the following, which you omitted in your abstract:—(The *American hellebore*, which is the *veratrum viride*, is known by the names of *Indian poke*, *poke root*, and *swamp hellebore*.) A physician in high standing was consulted about the propriety of publishing the statements with reference to this matter. He thought it would be better for Dr. Thayer to have it appear, that he might have an opportunity to correct the statement if untrue.

August 20th, 1860.

Respectfully,
Secretary of the Vermont Medical Society.

BEQUESTS OF THE LATE MR. PHILLIPS.—We learn from the papers that the late Hon. Jonathan Phillips, among his other liberal bequests to the various institutions of our city, has not forgotten its medical and charitable societies. Besides the sum of \$10,000 bequeathed to the Massachusetts General Hospital, and to the Massachusetts Medical Society, he has given \$5,000 to the Charitable Eye and Ear Infirmary, and the same sum to the Boston Dispensary.

Mr. P. has also bequeathed \$20,000 to the City, to be expended in the adornment of its streets and public squares, and it has been suggested that this sum, or a portion of it at least, be devoted especially to the erection of drinking fountains in various parts of the town, for the convenience of street pedestrians. Such an appropriation we should regard as strictly in compliance with the will of the testator, and it certainly would conduce much to the health and convenience of the city, and thousands in this and after generations would have reason to bless the name of one who had left behind him a memorial at once so useful and enduring.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, AUGUST 25th, 1860.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	49	40	89
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	54.9	51.1	106.0
Average corrected to increased population, . . . . .	..	..	120.9
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infantum.	Scarlet Fever.	Pneumonia.	Measles.	Smallpox.	Dysentery.
13	15	1	1	0	4	2

COMMUNICATIONS RECEIVED.—Maine Medical School.

Deaths in Boston for the week ending Saturday noon, August 25th, 89. Males, 49—Females, 40.—Accident, 2—apoplexy, 1—asthma, 1—disease of the bladder, 1—disease of the bowels, 1—inflammation of the bowels, 2—congestion of the brain, 2—disease of the brain 2—burns, 1—cancer, 1—cholera infantum, 15—consumption, 13—convulsions, 2—croup, 1—cyanosis, 1—diarrhoea, 3—dropsy, 1—dropsy of the brain, 2—dysentery, 2—epilepsy, 1—erysipelas, 1—scarlet fever, 1—disease of the heart, 1—disease of the hip, 1—hernia (strangulated inguinal), 1—intemperance, 3—disease of the kidneys, 1—disease of the liver, 1—inflammation of the lungs, 1—marasmus, 2—old age, 3—paralysis, 1—pleurisy, 1—premature birth, 1—scrofula, 2—smallpox, 4—tabes mesenterica, 1—teething, 1—thrush, 1—tympantitis, 1—typhomania, 1—unknown, 3—whooping cough, 1.

Under 5 years, 45—between 5 and 20 years, 7—between 20 and 40 years, 15—between 40 and 60 years, 12—above 60 years, 10. Born in the United States, 63—Ireland, 22—other places, 4.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXIII. THURSDAY, SEPTEMBER 6, 1860.

No. 6.

SUPPOSED CASE OF CHOLERA INFANTUM.

By C. W. COWLES, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

I SEND the following report of a case that seemed somewhat unusual, as well on account of the symptoms, as from its suddenly fatal termination. Owing to a difference of opinion as to the diagnosis, I am induced to give the details of the case, together with the reasons upon which the diverse opinions were based.

The patient, a child of about 22 months, had been suffering for several weeks from cutting teeth, which had caused a deranged condition of the bowels. During the week previous to the final attack, there had been considerable improvement, until Thursday, August 2, when there occurred an almost entire suppression of urine, what was secreted being of a very dark color. This yielded to the use of diuretics, and in the course of twenty-four hours the secretion was fully restored, and continued so. The suppression was followed by a slight anasarca.

Through the day before his death, he appeared much better; in the evening was singing, and was quite lively and cheerful. About midnight, he awoke, complaining of some pain, like colic. Aniseed-tea was given, and he soon fell asleep, but awoke again, in a little time, with considerable nausea and retching, although there was scarcely any vomiting. This continued through the remainder of the night. It was remarked by the parents, that after each attack of retching, he seemed a good deal prostrated. There was but one motion of the bowels—about six o'clock in the morning. This presented no unusual appearance.

About 7, so great a change was noticed that I was sent for, and saw the patient a little before 8. At that time there was retching, with coldness of the surface, severe colic pains and tenesmus, and the eyeballs were sunken; the child being, in fact, in a state of collapse, and, with the previous symptoms, showing evidences of what I considered it to be, a case of cholera infantum. As soon as possible, a small powder of calomel, combined with sugar

and nutmeg-powder was given, followed by five drops of paregoric. Bottles of hot water were applied to the extremities, and an injection of starch and opium was prepared, but before it could be administered the patient sank away and died.

Shortly after death there began to be, at the back of the neck, discoloration of the skin, which extended down between the shoulders and across the small of the back.

After the death of the child, and after I had left the house, a neighboring physician happened in, and remarked that it was the most singular case he had ever met with in his practice, and requested an examination. This was assented to, and the time was fixed for six o'clock in the evening of the same day. I was notified of the arrangement, but, having professional business which occupied me, I was not able to attend till half past seven. When I reached the house, I found the examination had been made, by the physician referred to, assisted by his partner and several other medical friends. The abdominal and thoracic viscera were examined, and as the incision was closed up, I asked what were the *post-mortem* appearances? The answer was—"an enlargement of the liver and spleen, congestion of the lungs, heart and kidneys, with some effusion into the cavity of the pleura."

The conclusion arrived at was, that death was the result of congestion of the lungs. My opinion was formed from an exhibition of the symptoms I have detailed, and strengthened by the authorities consulted. Believing epidemic cholera and cholera of infants to be owing to similar pathological conditions, I deem the following remarks of Watson in relation to the former to be applicable to cases of the latter. He says:—"The course of the symptoms varied a good deal in different persons. Sometimes the vomiting and purging soon ceased, and sometimes there was *neither sickness nor diarrhoea at all*, but rapid collapse and sinking. *These were thought the most formidable cases.* However the peculiar secretions might be poured forth, in some instances, none of them were ejected from the body."

"A patient died of cholera in the Middlesex Hospital, without any vomiting or purging, but on examination of the body, we found the intestines quite full of the rice-water serous fluid." (In this case, and while the body was being prepared for interment, and after the examination, a large quantity of thin, watery fluid was ejected from the mouth and nose.)

Again, in a case reported by Dr. Morland, in Vol. LXI. of this JOURNAL, a child was brought to his office on Friday, at 8 o'clock, P.M., and while there "threw from the stomach, without effort, a little liquid of an acid odor." That night, "it became suddenly ill, grew worse, and died early on Saturday morning, its symptoms being distinctly those of cholera infantum." As described by the mother, "the whole thing was so quickly over, that there was no time to send for the doctor."

Dr. Coale also reported, at a subsequent meeting, a case of a child, a year old, which he was called to see at 9 in the morning. It was then moribund—it was well at midnight. In another case, “a child was brought to his office between 3 and 4 in the afternoon, with diarrhœa, but without vomiting. He called to see it the same evening, and found it dying, having had the symptoms of cholera only about four hours.”

Such were the evidences which tended, as I estimated them, to confirm the diagnosis I had made.

On the other hand, the diagnosis of pulmonary congestion seemed opposed by many considerations. In the first place, although the stomach and intestines were not opened, I could not expect that a *post-mortem* examination would reveal the cause of death in a case that had proved so suddenly fatal. Authors agree in this, and although the liver is said to be almost always enlarged in cholera infantum, this condition might be observed without such connection. I considered, too, that the changes in appearance of the various organs would be greater after death than before, from the gravitation of blood, more particularly as a manifest stagnation and treacle-like state of the blood was apparent in the face, from the straining efforts caused by the tenesmus. Again, in the “Cyclopædia of Practical Medicine,” Article *Pneumonia*, we find it stated in relation to some of the changes that take place in the engorged lung, that these are “more a cadaveric than a pathological process.” It says, further, “We do not maintain that there is no interstitial serous effusion during life; the analogy of other inflamed parts renders it probable that it does take place, but, we suspect, by no means to the extent which is commonly found in the engorged lung after death.” Also, “the connection of congestion with inflammation is still more forcibly illustrated in the pneumonia of the moribund, in which the blood, imperfectly oxygenated through the failure of the respiratory forces, accumulates in the pulmonary vessels, which *even then* become the seat of inflammatory action, and, if the agony or change of death be of long duration, produce those changes which are recognized as the results of ordinary pneumonia.” I make these references to show that, although in this case, as I was informed by a medical man who was present at the examination, there was no serous exudation from the lung when cut into, we might have signs of congestion without such having been the condition of the lung before death, I think, then, I may reasonably object to the existence of pulmonary congestion during life, being confirmed by the *post-mortem* appearances, since similar appearances of the heart, liver, kidneys, &c., would indicate these to have been owing to a “cadaveric rather than a pathological process.”

The absence, too, of the physical signs of engorgement, the fever, hurried breathing, crepitus, puerile respiration, &c., would afford additional argument against such an hypothesis.

An analysis of the case may therefore be presented as follows :

1. The changes that would naturally take place in the twelve hours that elapsed before the examination, would be so great as to throw a doubt upon the *post-mortem* appearances as evidence of the cause of death.

2. The symptoms of the case, before death, would afford stronger proofs of its nature than the *post-mortem* appearances.

3. If there had been so grave disease of the thoracic viscera, there must have been some of the physical signs during life.

And, lastly, the retching, with sinking after, the colic pains, the tenesmus, the sinking of the eyeballs, and the "rapid collapse and sinking," though there was no vomiting nor purging, might justify the diagnosis of cholera infantum.

Stanstead, Canada East, August, 1860.

THE BED CASE,

OR AN IMAGINARY AFFECTION WHICH CONFINES THE PATIENT IN BED, AND IS PRECEDED OR NOT BY DISEASE.

BY WALTER CHANNING, M.D.

[Continued from page 99.]

THE question recurs, what is to be done in the Bed Case for the removal of various deformities which lying in bed, certain positions, and an incidental, but unnatural action of muscles may produce. This can best be done, and only done, by disturbing the whole conditions on which curvature and other deformities have been produced.

In the first place, position is to be changed. The patient is to get, or be moved out of bed. It is there she has had her disease formed and ministered to, and out of this she must come. It may not be possible to accomplish this at once, but by degrees, positive degrees, it will be done. It will be painful, exceedingly painful; so it is with the man who has been on his back for three months on account of compound fracture of the thigh or leg, and all the time subjected to antagonistic forces to keep the limb straight. He has got to move, and to use his leg as freely as before the fracture; and to begin this must be painful, it may be exquisitely so. It is begun, of course, and always succeeds. A contraction, however, which nearly resembles those of the Bed Case, is that which occurs to the muscles of the lower jaw, and by which the mouth becomes gradually, but completely and permanently shut. Here is no disease of the muscles. Their action is exaggerated, simply because they have nothing else to do but to contract. It is quite curious to observe that however slow such a process may be, it will surely in time be perfect.

Now this contraction may be overcome, and by pressure applied

in the only way it can be used in this particular case. It may be interrupted or continuous pressure, as circumstances indicate, or rather permit. Prof. Mott, of New York, has been successful in the use of violent force, in overcoming the obstacles to recovery in cases of chronic shut-mouth, and has proved how true is that principle which finds relief in natural living functions, rather than in artificial supports. As soon as a morbidly contracted muscle is straightened, the muscles which have been useless are called into action. They must and will act if alive, and in this action is the first and most important step to recovery.

But how preserve them in their places? The straightened muscle will contract as soon as the power is removed, and the antagonist muscles have not regained power enough in their temporary contraction to prevent this. Habit, continued action in a certain direction, is in such a case a paramount power, and must be obeyed. There is much apparent truth in this, and it becomes for the most part practical truth by the manner in which the patient is left after the painful trial to remove distortion has been made, and this successfully. In such a case the will of the patient must be brought into activity, however painful its exercise, and its organs made to obey it. The position must be such, however difficult it may be voluntarily to sustain it, as will tend to bring into line that which has been so long crooked, and to keep it straight. But there is apparatus by which to accomplish it. True. We have apparatus of brass, of steel, of wood, and cord. I have looked at such with surprise that human ingenuity had been so tasked to accomplish an end for a being in whom is ever living, and ready to act, an apparatus which Infinite Wisdom has contrived and executed, and which is equal to all the demands that can ever be made upon it. And now what has been the result of the human contrivance? Not the universal result, as recovery may often happen in spite of it, and would have occurred without it. What is the known result? Where is the apparatus, or the principle, upon which it acts? It is for extension and counter-extension. The points of support (*les points d'appui*) are not bed rails or boards, but living textures—the arm-pits or the hips. One result is excoriation, ulceration of these points. At times, the patient suffers extreme pain. I have now in mind a young woman who has been fourteen years bed-ridden, who ascribes the continuance and increase of her disease to an apparatus, which produced extreme distress on the points of support of the hips, and ultimately such a loss of power as almost to prevent, for a time, motion altogether. Other effects are there. There may be straightness of the spine and comfort in motion while the apparatus is applied. But as soon as it is removed, the column bends at once, and the old agony invariably returns. How true is this last result in regard to abdominal supporters, so called. They never cure. They may give temporary relief, though not always; but as soon as they are removed, the old

suffering returns. Our Bed Case may leave the bed in her *casings*, but she gets no cure by them. As far as the means of recovery are concerned, she too

“Is naked, though locked up in steel.”

Whence the failure? The organs of support, and of motion, have acquired no power, no use by the apparatus. They have been quiet, though the body may have been in motion. Had they been free to move, the old suffering would have existed, and the old deformity would, as far as the machine is concerned, have come back again. Attempts have been made to combine *rest* and *motion* in the same arrangement. But to useful practical ends, can such union be made? Is not the good destroyed by the evil—their co-partnership, or exact balance, leaving things precisely as they were before?

The true apparatus for such cases exists within. It is not used, because pain attends and may follow its use. After a time, though the original trouble may have been greatly lessened or removed, the long absence of use—permanent contractions—and quiescence of antagonists, will make motion as painful as it ever has been. The agents in the recovery are the muscles, that living apparatus which survives so long neglect, and which so often shows itself ready for use, and under circumstances, too, which astonish both patients and friends. The motive power is the will—the will of the patient, or the will of others. The causes of its exercise are various, and often declare themselves active when least looked for. The body, which has been at rest for years, which has never been expected to move again, as if imbued by some new principle of motion leaves its long resting-place, and at once lives again with the moving world. The performances of Mesmerism have been said to be quite wonderful. It has said, “take up thy bed and walk,” and half the miracle, at least, has been performed. No apparatus has been used. No preparatory exercises have been enacted. The bird has been drawn from its nest, and has flown away. One is unconsciously moved to rhetoric, sometimes, even in physic. The reader may find an apology for this unusual burst, when I come to the cases.

It was while speaking of the womb in its relation to the Bed Case, that I became involved in spinal troubles and treatment. The whole uterine system itself, and its appendages, are allied to this case. Functional and many organic affections accompany, produce, and give to it its characteristics. Among these are various morbid conditions of the mouth and neck of the organ. Such are chronic inflammation, induration, ulceration and enlargement of these portions of this organ. Morbid irritability, neuralgia, with or without changes in structure, are closely related to the Bed Case. So are displacements, especially when accompanied by enlargements, and when in consequence of this, or by position of the organ in its healthy size and state, pressure come

to be made upon parts of the pelvic cavity, which ordinarily are not subjected to that pressure. It may be this pressure is made upon the ovaries or an ovary, upon the rectum and hollow of the sacrum, or forward upon the bladder and symphysis, on the sides of the pelvis, or against the muscles, bloodvessels, nerves, which belong to or have their courses through the pelvis to the lower extremities. Such lesions of place may farther, and do, put upon the stretch the natural supports of the womb and its appendages, and thus may come to disturb the natural condition and relations of these supports. Many and most of these agencies and conditions are accompanied with more or less pain or uneasiness. This pain or uneasiness is constant, or, at least, one or the other is in some degree for the most part perceived. Especially is this the case in the *erect posture*. Even when not felt, there is a consciousness perpetually disturbing the patient that she is not well—that she is not as others who have none of her troubles—that she cannot exert herself—that she must give up—that she must go to bed.

We have already treated of the symptoms of the Bed Case, and which come of sympathy or of reflex action. These are believed to have more or less connection, or dependence, on functional or organic disturbances of the uterine system. The disease in question shows how intimate may be the connections of important general disease, or disorder, with uterine disease. It was just shown that local pain or uneasiness is a most frequent attendant on certain uterine disease, with or without displacement, and that the Bed Case is, for the most part, the result of such morbid sensibility of the parts concerned. I say, *certain* uterine troubles, for our disease is by no means a consequence of, or necessary attendant on, malignant disease of the organs concerned. We indeed find that in the progress of some maladies, the bed at length comes to be demanded. But in such, it is the demand of the disease, the stern necessity of utter prostration, or of inability to sustain the erect posture—as in the case of a broken limb—which forces the patient to bed; the last stage in the malignant malady before the grave. Such patients resist to the last, and go to the bed to die. It is in non-malignant uterine diseases, we find the most frequent causes of the Bed Case. These are frequently accompanied by functional disturbances which add greatly to their agencies in producing the Bed Case. We have leucorrhœa—bloody, serous, purulent, muco-purulent, and other secretions. These are drains, exhausting drains from a system which may not be well nourished, and which add greatly to the general debility.

Pain was spoken of as a very common and persistent symptom of the Bed Case. It may not be severe, and is most troublesome in the erect posture—while walking, in attempts to stand, to walk, to ride—in short, in every species of exercise in which there is motion of the trunk and extremities attempted, and especially

if performed in the erect posture. Long-continuous pain, or merely uneasiness, will come gradually to produce effects which are very striking to patient and friends. The perpetual consciousness of the existence of organs, or of separate portions of the living body, though this consciousness may not be constituted or kept up by severe pain, will at length come to show itself, and in a great variety of ways. No one at all acquainted with the laws of life, with the results of agencies which disturb living organs, and the existence of which is only declared by morbid sensations, especially when long-continued—no one will be surprised at these effects. The constant dropping will wear the stone. A constant fret will wear the garment. So will the body and the mind give way—be conquered, by such agencies as we have been considering, and present the characteristic features of the *Bed Case*. The known existence of a disease which is unaccompanied with pain, and of an organ whose healthful state is not necessary to life, will come at last to produce uneasiness, discomfort, morbid mental conditions, very disturbing to their subject, but which disappear, often at once, whenever the offending part is removed, or by the cure of the malady.

II.—THE MIND.—We have now reached a very interesting question in our inquiries. What are the mental phenomena presented by the *Bed Case*? These are various. Sometimes they indicate a mental condition, which is the direct product of the disease. Sometimes they get their character from individual peculiarities, or intellectual habits, and moral idiosyncrasies. The patient is of literary habits—a student, or a writer, or both. The sick-room becomes a study. It is selected with care as to aspect, and especially the prospect. Sun, air, and view, are studied, until the most perfect arrangements are made which circumstances permit. Books, pictures—whatever will make the interior more agreeable—are collected. Society has been provided for in the choice social relations and habits of the individual. Preparations for a sort of moral and intellectual hibernation have been made (the winter lasting through the year, and it may be many years too), and the sufferer enters upon a new life, with the sole prospect of passing from “bed to sofa” and from sofa to bed, it may be for life, as a refuge from a thousand annoyances, and, at all events, as presenting the best chances for any portion of physical comfort.

The sick life, corresponds with the sick room. Books are written and read. Friends are assiduous with their attentions to prevent such a life from becoming intolerable, and to render it even agreeable. The nicest fruits, and the most exquisite flowers, are selected. The whole of nature and of art are put under contribution. Everything is done, and beautifully done, too, and year after year glides by, leaving behind them pleasant memories, and gilding the future with hopes, if not of better things, of freer and brighter

days. This, to be sure, is the golden side of the shield. It has its reverse, as all other and like things have. There are pain, discomfort, depression, in this sick life. Motion is so intolerable, often, that it is rarely attempted, except under the strongest motives from the physician and friends. And these sometimes suffer some abatement in the qualities of kindness and considerateness, in consequence of their vain attempts to serve the sufferer. Opium, however, comes in, to such cases, with its promises and performances of solace and sleep; and if the time of disease is lengthened by it, the days and years are made less wretched.

In this class of Bed Cases, which, to be sure, has but few examples, the bodily condition may undergo but slight changes. The complexion may become fairer, more delicate by an always in-door life, and the weight may be increased by varieties of nourishing food, and by the slight waste which entire rest, and the absence of grave care, often involve. Intellectual habits secure varied and grateful occupation. There is talking, and reading, and writing it may be. The life may be passed much in the past, but when its pleasant is at our call, the present may be agreeable enough. The religious sentiment may be entire, and this, even in its occasional exaggerations, as with all other circumstances of the Bed Case, it is likely to be, brings with it enough of resignation to make the patient comfortable, and a willing waiter upon the future. The temper is preserved in the present class; fretfulness, dissatisfaction, impatience, are rarely present, or, should either or all of them occur, there is a wide garment of charity for such infirmities, and they are soon covered up and forgotten.

I have spoken now of an extremely interesting class of patients. They do not constitute the whole or the greater number. Still, in their various modifications, these elements are frequently met with. From what is here affirmed, may be gathered the circumstances or symptoms of other cases. In these, from their length, from their hopelessness, effort for cure is gradually given up, and the bed is the home of the sick. In these we have sometimes great emaciation; some symptom—it may be cough—is gradually established, and some of the imitative signs of phthisis may be present. In these, the mind may suffer with the body; weakness extends to this, and moral manifestations made, and grow habitual, which are anything else but agreeable. Often in these, dissatisfaction and discontent declare themselves very strongly; and, as is common in some other forms of mental weakness, the friends of the patient, those who, by night and by day, do most to make their sufferings less, are the patient or impatient recipients of most of the current complaints.

One fact in this history deserves notice, as it has some bearing on diagnosis, prognosis, and treatment. It is the force—the intensity—let us use the best word—the exaggeration, which cha-

acterizes the expression of the whole views of the patient. No matter what may be the subject of conversation, this characteristic of it is very generally present. It doubtless has effects beyond itself. It may be upon the patient, or on friends. The former comes to estimate the severity of her case by her habitual descriptions of it, and as these grow in strength, her consciousness of the hopelessness of her condition is increased. The physician and friends are in great danger of a like influence until, at length, the case is abandoned; or, what most frequently happens, it passes into the current quackery, and drifts about into whatever directions such an agency, or mere accident, may impel it.

There is another fact in this connection which deserves notice, being involved in others enumerated. The Bed Case becomes thoroughly acquainted with whatever may be done for relief. The prescriptions are all inquired into and studied, and their effects are stored. Suppose, now, a new physician is called in. He examines the case, but as the patient is thoroughly versed in symptoms, he will find himself anticipated by the rapid enumeration of symptoms he may be quietly hunting for, and a continuous story come of his first question, as it were a text on which the patient was to discourse. He suggests remedies. "O, I have used that most thoroughly. That never agreed with me. I do not understand that, and it has been a rule with me, never, never to use what I do not perfectly understand." Galvanism is suggested. "I have studied Golding Bird, and in my case he would never recommend that,"—and so on for hours; for the time of visits to such cases are almost without end, certainly without one on which any safe calculation can be made.

How perfectly natural is this, and how illustrative is this part of our history of the disease. The mind has become, in a sense, a part of the body. Its activity, which in health controlled its own faculties, and the physical over which the intellectual has rule, has its power in the service of the body, and its whole operations acknowledge the legitimacy of the usurping empire. This exists, the whole of it, and consists with the perfect consciousness of what is precisely the mental relation with the physical. The reasoning is perfect, and the conduct is entirely harmonious. Different, and especially opposing views are argued out and down, and with a force which leaves very little chance for successful reply. The whole of the mind, and its greater activity, which may be the consequence of physical inability, comes into the service of the patient, and in its paramount development leaves the field in her hands. Every physician at all conversant with the Bed Case in full expression, must have been struck with what has so often and strongly been impressed upon the writer. In this view of it, no disease makes a stronger claim on the best regards of the medical man than this. It is not insanity; and yet the mind has so far

lost its prerogative, as to demand of the physician the best remedial management of a disease which has so far led it captive, and which has in itself no certain means of relief.

[To be continued.]

FALLS FROM GREAT HEIGHTS FOLLOWED BY SLIGHT INJURY.

MR. GEORGE MALLETT relates (*British Medical Journal*) the two following remarkable examples of this:—

CASE I. occurred about sixty years ago; and about twenty-five or twenty-six years since, it came to my knowledge under the following circumstances:—

At the period last named I was requested to visit a poor man, who had been suffering severely for four days. I found him in great agony from retention of urine, none of which had passed the bladder for four days. Many ineffectual attempts had been made for his relief by an irregular practitioner, but, unfortunately, he had been unable to introduce the catheter. The patient was about seventy years old, and presented the following symptoms:—The skin was hot; the face red, and much emaciated; the pulse was rapid and very feeble; the mouth and tongue hot, parched, and covered by a thick coating of dark fur—in fact, presenting such an appearance as would be expected from so long a retention of urine. With great difficulty a large catheter was introduced, and from five to six pints of urine were drawn off; the first was very ammoniacal, and the latter portion semipurulent and bloody. The catheter was introduced twice a day for three days, when the man died.

The day before his death he was very cheerful; and, in a jocular manner, said, “that in his younger days he had met with a bad fall, but he feared he had then suffered a worse one, as he had fallen into the hands of the doctor.”

He explained himself by stating, that when placing some of the masonry upon the highest part of the tower of a church called St. George’s, in this town, his foot slipped, and he was precipitated from the top to the bottom, the distance being at least one hundred and twenty feet; and that the fall was uninterrupted by any intervening scaffolding, so as to diminish the impetus of the descent. He added, that he was so little injured that he was able to resume his occupation in a few days.

Upon making subsequent inquiry, I found his story to be strictly correct, with the addition, that his head fell upon some sheet lead, which was extended upon the ground, and that the force was so great that a deep impression was made upon the lead by the skull.

CASE II.—On December 8, 1859, I was called upon to visit
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another curious case, which recalled to my recollection the notes I had made of the preceding one.

A collier, aged about 50, was descending a pit or coal-mine in a way frequently followed; but certainly such a mode of descent ought not to be permitted, as it is unquestionably dangerous. The descent is made by placing one foot in a ring or kind of stirrup, at the same time holding the rope with one or both hands. He had not descended more than four or five yards, when, by some accident which he cannot explain, his foot was knocked or slipped out of the ring, and his hold of the rope at the same time giving way, he fell at once to the bottom of the pit, a distance of at least one hundred and thirty-five feet. There was nothing to break or mitigate the force of the fall. He was found alive, but groaning and constantly muttering, "O my children! O my children!" He was brought up, and I saw him about an hour after the accident. He appeared to be moribund. The pulse was not to be felt at the wrist, the extremities were cold, and respiration was very difficult and painful. The slightest motion gave exquisite pain, and I could not attempt to ascertain what amount of injury the trunk had sustained. There was some contusion, with extravasation of blood, at the posterior part of the right thigh, a slight laceration of the scalp, and the knuckles of both hands were slightly excoriated and swollen, probably from his instinctively throwing out his arms in the vain hope of saving himself, and so striking the sides of the pit. These were the only injuries I could discover, as all the bones of the extremities were sound. He was placed in bed, in the easiest position, which was lying on his back, but rather inclining to the right side. Bottles filled with hot water, and hot bricks, were applied to the extremities, and brandy and water was ordered to be given every half hour until warmth was restored.

I then left him, and certainly did not expect to see him alive again; but, to my surprise, on the following morning, I found him much improved. His pulse, although still feeble, was regular and distinct; warmth had also returned to the extremities. The bladder had emptied itself naturally. The chief complaint now appeared to be on the right side; a careful examination of which showed that three or four of the lower ribs were fractured, which, upon the slightest movement, caused the greatest suffering, and rendered the breathing so difficult as to threaten instant suffocation. The chest was bound up, and beef-tea, &c., were ordered.

On the third day the bowels were moved, the pain diminished, and the respiration easier. From this time the improvement was gradual, and without interruption; so that, on December 25th, he was so much improved as to be able to walk down stairs, and the only remaining complaint was a slight pain at the side when drawing a deep inspiration.

I have said little or nothing respecting the treatment, simply

because little or no treatment was required. It was one of those numerous cases of which it has been justly said, "Nature cures, and man has the credit."

Undoubtedly, it is difficult to conceive, under any circumstances, how the human frame could, without greater injury, have sustained such shocks as must have been inflicted upon it in these cases. It would have been natural to suppose that the momentum or force acquired by the bodies falling through so great a space, would have been sufficient to have dashed them into mangled and disordered masses, more especially as they could not have fallen upon substances more unfavorable—lead in the one case and solid rock in the other.

ON THE ILLUMINATION OF THE CAVITIES OF THE BODY BY
MEANS OF ELECTRICITY.

BY M. FONSSAGRIVES.

A LONG time ago, the author had conceived the idea that the electrical light might be advantageously substituted in diagnostic researches, or in operative manœuvres, for the ordinary methods of illumination, which are either insufficient in intensity, or defective by the color of the light, or embarrassing by the impossibility of using them without interfering with the space required for instruments, and by the necessity, on account of the heat evolved, of keeping the light at a great distance from the surface to be illuminated. The whole problem consisted in discovering a source of light, with little or no calorific action, which might be condensed in tubes of small size and of diversified form, and which would be of sufficient whiteness not to alter materially the color of the organic textures lighted up by means of it. By the assistance of M. Th. du Moncel and M. Ruhmkorff, this problem seems to have been solved in a satisfactory manner. M. du Moncel, having observed that the vacuum tubes of Geissler do not become heated under the influence of the electric light transmitted through them, and knowing, moreover, that this light is more brilliant in proportion as the tubes of communication between the terminal balls of the apparatus are of a smaller diameter, suggested that, in taking an apparatus of that kind, in which a long tube, almost capillary in size, should be bent upon itself, and convoluted in the manner of the electro-magnetic multipliers, we might obtain not only a kind of luminous cylinder, capable of being introduced into narrow cavities, but even a kind of electrical beacon, on certain points of which the light might be concentrated, without any risk either of over-heating or of commotions of any kind. The first part of the problem was, therefore, solved. With regard to the color of the light in the tubes, as this depends entirely on the nature of the gas on which the vacuum has been made, and as the color is white

with certain mixed gases, as carburetted hydrogen, carbonic acid, hydrochloric acid, &c., all that is required to meet this part of the problem is to prepare the tubes with suitable gases. M. Ruhmkorff, to whom the construction of these tubes was entrusted, and who has introduced several improvements in their formation, has obtained results which are quite satisfactory. He has found out a mixture of gas, which gives a suitable white light in the tubes; and experience has shown that the amount of light afforded by the apparatus is more than sufficient for the requirements of medicine and surgery.

Without for the present tracing absolutely the field of application of this new means of illumination, the following may nevertheless be pointed out:—1. As a means of diagnostic exploration, in the examination of accessible organic passages, for the purpose of recognising their normal or pathological condition. 2. As means of illumination to assist experimental action. It is easy to foresee the utility of this means in those operations which present, among their greatest difficulties, the impossibility of lightening up suitably the surfaces on which instruments are to act. In particular, the following will derive advantage from this new application—1st, Staphyloraphy; 2d, Operations for vesico-vaginal fistula; 3d, Extirpation of naso-pharyngeal or uterine polypi; 4th, Excision of the tonsils, &c. Certain dental operations, also, may be expected to be rendered more easy of execution by this proceeding. It may be questioned, also, whether the field of the retina might not be illuminated more easily and completely by the same means.—*Acad. des Sciences*, Jan., 1860.

INFLUENCE OF FATTY BODIES ON THE SOLUBILITY OF ARSENIOS ACID.

BY M. BLONDLOT.

THE remarkable fact, to which the author calls the attention of toxicologists, is the property which fatty bodies possess of presenting an obstacle to the solubility of arsenious acid, either in plain water, or in water slightly acid, or alkaline. A large number of experiments have proved to him that the least contact of arsenious acid, in the concrete state, with a fatty body, is sufficient to reduce its solubility in these different menstrua to one fifteenth or one twentieth of what it would be, *ceteris paribus*, without the intervention of the fatty principle—a fact which may easily be ascertained by testing the proportion of arsenic dissolved by means of starch and tincture of iodine. Since a mere trace of any fat whatever is sufficient to produce this effect, and since neither acids nor energetic bases oppose any obstacle to it, it is evident that there is not in this case any chemical combination between the arsenious acid and the fatty body; and that, therefore,

the latter can only interfere mechanically by soaking the arsenious acid, so as to remove it from the action of the aqueous fluids, which would dissolve it. This fact, in itself so simple, is susceptible of numerous applications in toxicology. It explains, in the first place, how it has happened that, in medico-legal analyses, arsenic has sometimes been sought for in vain in the liquid portion of aliments which contained it, when they were more or less fatty, such as soup, milk, &c. It also gives the reason why arsenic, taken in the form of powder, becoming mixed in the stomach with fatty substances, which retard its solution, has occasionally remained a very long time without producing poisonous effects—a circumstance which might, in certain cases, mislead the investigations of justice. In the same way we may account for a very significant fact related by Morgagni, that, in his time, it was not very uncommon to see jugglers swallow, with impunity, pinches of arsenic, because, he adds, they had taken the precaution of swallowing, beforehand, milk and fatty substances, which they brought up again by vomiting after the public had retired. Finally, these experiments show the benefits which may be derived, in this kind of poisoning, from the administration of fatty bodies, especially of milk, which not only have the advantage of acting as emollients, according to the general belief, but which are veritable antidotes, capable of retarding considerably the solution, and consequently the absorption, of the arsenious acid, which, as often happens, still remained in the concrete condition.—*Ibid.*

ON THE DISEASES OF PRINTERS.

BY DR. VAN HOLSBEEK.

DR. VAN HOLSBEEK having enumerated the diseases resulting from overwork, from intemperance, want of cleanliness, vicious habits, protracted watching, &c., proceeds to speak of the morbid affections more specially belonging to the printer's art. Fissures of the lips, of varying depths, are of frequent occurrence; at other times tumors are developed on the inner surface of the same parts, which are nothing else than follicles whose excretory ducts are closed. These tumors sometimes inflame, become highly painful, rapidly ulcerate, and assume a cancerous appearance. Such affections of the lip are owing to the habit some compositors have of putting into their mouth the types still moist with the fluid which has served to wash them. Dyspepsia is frequent, as is diarrhoea; the latter is, however, of a transitory and mild nature. Among the most common affections are those of the respiratory passages, of which laryngitis and bronchitis are the principal; pleuritis is rare; pleuro-pneumonia is frequent and severe. These diseases are favored by the curved position which the printers are obliged to maintain during their work, particularly when they cor-

rect on the forms, and still more by the night-work, by gas-light; by the dust and emanations in places often confined and badly ventilated. Nearly twenty-five per cent. of printers die of tuberculosis, either hereditary or acquired. Diseases of the heart prevail among the pressmen; hemorrhoids are rare; varices and varicose ulcers are of frequent occurrence; the compositors who correct on the form frequently suffer from cerebral congestions and hæmorrhage. Among nervous diseases we observe tremor of the hands, against which the author successfully employs the electric current. Saturnine colic and paralysis are rarer than formerly, an improvement due principally to the difference in the composition of the materials of which the type is made, to the precaution of cleaning it from dust, as well as frequently rubbing the boxes which contain it; lastly, to the care of the workmen, who no longer put the letters in their mouth. Hernia is common, particularly among the pressmen; in them we occasionally observe distortion of the joints of the fingers. Fissures and callosities form on the thumb and index finger of the right hand, on account of the roughness of the characters, particularly if they are new and damp with the matters with which they are polished; moreover, in consequence of the habit the printers have of washing themselves with alkaline water or bad soap. Amblyopia and myopia, so very prevalent among typographers, terminate the sketch drawn by the author of the diseases of this interesting class of artisans, with whom we are in daily contact, and whose intelligence and diligence we have constant reason to admire.—*Lo Sperimentale*, December, 1859, page 560.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, SEPTEMBER 6, 1860.

THE HUNTER MEMORIAL.—We have been requested to call the attention of the subscribers to the Hunter Fund to a portion of a letter from Mr. South, President of the Royal College of Surgeons, to the Chairman of the Massachusetts Committee. We would also inform the profession in Berkshire, Bristol North and Hampden Counties, whence no subscriptions have, as yet, been received by the Committee, that there will be time enough still left to collect any sums, even the smallest, before the final closing up of the subscription from this side of the Atlantic.

The National Committee, whose circular we printed in our last number, will not finish their labors until after the next meeting of the American Medical Association, at Chicago, in 1861. As the sum is small (\$1.00), we cannot but hope that many in those counties, and perhaps from other parts of the State from which reports have already been made, will avail themselves of the present occasion to enrol their names as willing contributors to the fund, the sole object of

which is to make an enduring monument to the great fame of our illustrious brother. The names of the Massachusetts Committee are—Henry I. Bowditch, George C. Shattuck, Henry J. Bigelow, Boston; Alfred Hitchcock, Fitchburg; Morrill Wyman, Cambridge. Any one forwarding \$1.00 to either of the Committee can have his autograph signature enrolled with lists of those who have already subscribed, which will, eventually, be associated with those subscribers from all parts of the Union and deposited, in one volume, in the Library of the Royal College of Surgeons.

Messrs. Editors,—A few weeks ago, I sent, by a mutual friend, a part of the money collected in Massachusetts for the Hunter fund. It was collected before the National Committee was chosen. All moneys hereafter collected (and three counties remain to be heard from) will be forwarded under the direction of the National Committee.

Though not intended for publication, I cannot forbear sending the following extract from the letter sent by the President of the Royal College of Surgeons in answer to the donation from the physicians of Massachusetts. It is, in fact, due to the subscribers, that it should be laid before them.

Yours respectfully,

HENRY I. BOWDITCH.

After acknowledging the receipt of £45 as a *first* instalment from the Massachusetts Committee, and which he hopes will prove “an earnest of the kindly intentions of the National Committee of the American Medical Association,” the President continues:—

“You will be pleased to know that we have collected between £1100 and £1200. We have entrusted the execution of the statue to Mr. Weekes, one of our first artists, who, we have no doubt, will most satisfactorily fulfil our wishes. It is determined the statue shall be in a sitting posture—Sir Joshua Reynolds’s picture to be the type. Its size will rather exceed that of life, and it will be placed in our Museum, in the large West Chamber. It will probably take two years for its completion.” He concludes as follows:—“If our other cousins respond as nobly as the ‘old Bay State’ has, we shall have a most gratifying proof of the kindly feeling and due estimation which every well-minded man will always desire should be promoted and exist between kindred peoples like our own.

Believe me, yours very truly,

JOHN F. SOUTH.

August 2d, 1860.”

AMPUTATION OF THE LEG AT THE NEW YORK HOSPITAL.—We notice, in the second lecture of Dr. Watson, published in the *Medical Times* for August 25, a statement, with regard to the amputation of the leg, so extraordinary that we cannot forbear some allusion to it.

“In the first place you have observed, when I amputate at the leg, that I never carry the saw directly through the bone. If this were done, the sharp anterior angle of the shin would come in contact with that portion of the flap covering it, and in consequence of the abruptness of the pressure at that point, ulceration would be established. To obviate the occurrence of such a state of things, Dr. Kearney Rodgers advised that the angle of bone referred to, should be sawn off obliquely. This practice I have invariably followed out, and I believe it is also looked upon with favor by my colleagues, who, as far as I know, always carry out the principle. I would here remark that this is a practice which is not resorted to, as a general rule, outside. When I operated, a few days ago, by taking off a

leg, and after I had sawn off the angle of bone, a surgeon from Boston, who was present, remarked to me that he had never seen such a thing done before."

Now as we cannot for a moment suppose the lecturer to be unfamiliar with the numerous treatises on surgery in which this method of operating is directly alluded to, we are compelled to infer what is equally unaccountable, that he is unacquainted with the practice which has been in vogue, among civil and military surgeons, for more than half a century, and this considerably "outside" the limits of Gotham.

In the *Cyclopædia of Practical Surgery*, published in 1837, p. 177, it is stated that it has been the practice, both in England and on the Continent, for thirty years. The operation is also mentioned in *Skey's Operative Surgery*, Philadelphia, 1851; *Sedillot's Tr. de Med. Operatoire*, Paris, 1840; *Cooper's Surgical Dictionary*, New York, 1844; *Druihl's Practice and Principles of Surgery*, Philad., 1847; *South's Chelius*, Philad., 1847; *Vidal's Tr. de Path. Ext.*, Paris, 1851; *Velpéau's Elements of Operative Surgery*, New York, 1844; *Hargrave's System of Operative Surgery*, Dublin, 1831; and by Malgaigne, in his *Manual de Med. Operatoire*, Paris, 1849.

The two latter authors attribute the method to Beclard, Hargrave citing *Sabatier's Médecine Operatoire* as authority.

Velpéau, in speaking of the liability of the anterior angle of the tibia to perforate the integuments, and of methods to obviate it, says, "a much surer method consists in removing, with the cut of the saw, the corner of the angle of the osseous border itself. It is not known to whom belongs the first suggestion of this improvement, unless it be to *Assalini*, who, I believe, first speaks of it in his manual of Surgery. Military surgeons have long been in the habit of practising it. It was pointed out in the beginning of this century by an army surgeon, whose name I have forgotten. M. Marjolin and M. Beclard, in teaching it in their lectures, have caused its adoption among French surgeons. Mr. Guthrie, S. Cooper and other surgical practitioners have also long since made mention of it."

It appears, therefore, that Beclard, Sabatier and others were well aware of this process. The former died in 1825, and the latter in 1800, and therefore Dr. Rodgers must have suggested its adoption at an extremely early age.

In Boston, the operation has been taught for twelve years at least, has been repeatedly practised at the Massachusetts General Hospital, where it was performed on the very day on which the *Medical Times* was published that contains these remarks. We know not who the Boston surgeon is, referred to by Dr. W., but we would recommend him, before availing himself of the privileges of foreign hospitals, to become somewhat acquainted with the practice of those nearer home.

NEW SYDENHAM SOCIETY.—From the report presented to the Second General Meeting of the New Sydenham Society, held at Liverpool, July 29th, 1859, it appears that the Society now numbers 1820 members, of whom 1614 have paid their subscriptions. It is also stated that a Year-book for the current year is in course of preparation, and will, it is hoped, be soon ready for issue. This volume will be an expensive one. It is designed to form a tolerably complete register of all important communications, whether British or foreign, on Medicine, Surgery, and their allied sciences, during the year. References

will be given to all papers, and of the more valuable, short extracts will also be afforded. As nothing will be done in the way of lengthy quotation, and as foreign literature will occupy a great portion of the work, it will differ essentially from the two Medical Retrospects already in the hands of the profession, with which it is hoped it will in no way interfere. It is, of course, intended that the Year-book shall be an annual volume.

The following extract from the Report may not be uninteresting to our readers, in connection with the proposed issue of Hebra's Atlas.

"With the experience of the past year, careful calculations have been made which show that, with the subscriptions of 2000 Members for 1860, the Council will be able to issue four volumes (the Year-book and three others) to every Member. Estimates have also been obtained as to the lowest possible cost at which copies of Hebra's magnificent Atlas of Plates (life size) of Skin Diseases might be obtained. If issued at the rate of three plates each year, with a number of Members not exceeding 2000, their cost would so far absorb the income of the Society as to make it impossible to get out more than two other volumes. If, however, by the strenuous exertions of its present Members the Society could be increased to 3000, then the plates referred to might be issued without in the least interfering with its other operations. In other words, should the Society for 1860 number 2000 Members, each individual Member will receive four books; but should it number 3000, he will receive the same four books, and three of Hebra's plates in addition.

"Under these circumstances, the Council has determined to make an appeal to the profession. It feels that it need say nothing as to the advantage which will be conferred on Medical Science, should 3000 copies of these life-like portraits be placed in the hands of those who have to practise our art. In this number would be included not only residents in the British Isles, but in America, and our most distant colonies. The boon would literally be world-wide; for hitherto, on account of the great cost of such works, no good Atlas of Skin Diseases has got into general circulation.

"If, therefore, at the expiration of the present year, the number of Members who have paid their subscriptions for 1860 should reach 3000, the Council will at once give the order for the preparation of the plates. The latter, on account of the length of time occupied in coloring, could not be sent out till near the end of the year. By issuing three a year, and by a judicious selection of subjects, a very useful Atlas would soon be obtained."

It is to be hoped that the Profession in this country will generally respond to the appeal made by this useful Society, and thus promote the success of an institution, whose sole end and aim is the advancement of sound medical learning.

MOUNT HOLLIS SEMINARY.—We have received a printed Circular from the Principal of this Institution, Dr. J. H. Nutting, from which we are glad to learn that, in connection with a classical and business education, more than usual attention is here given to the physical development of pupils. From the fact that the Principal is a physician of considerable professional experience, we are inclined to regard the School as worthy of peculiar confidence. As has been said, the importance of these exercises cannot be overrated, but it is equally necessary that they be under the immediate supervision and direction of some one with an eye to the wants of each pupil, and the skill to adapt the means to the end required.

NEW YORK MEDICAL COLLEGE.—It will be noticed by the announcement for the eleventh session of this Institution, that the regular session will commence on the 15th of October, and continue five months.

In addition to daily clinics on medicine, surgery and obstetrics, there are to be four lectures daily, during the course. We notice, among its other professorships, that of Infantile Pathology and Therapeutics, a department of practical medicine, which, as has been well said, has not hitherto received the attention it deserves. The establishment of this Chair it is hoped will lead to an increased attention to this important subject in other schools. Dr. Jacobi, who has received the appointment to this professorship, is eminently qualified as a teacher in this department, and will be enabled to bring to his aid the results of much learning and experience.

THE PUBLIC HEALTH.—The London *Times* gives the average of deaths per week in the British metropolis as 1,227. In New York the average is about 550. Estimating the population of London at two and a half millions, and of New York at one million, these figures would show that the mortality in London and New York is exactly the same. New York, however, ought to be infinitely more healthy than the British metropolis. With a river on either side, and such opportunities as it possesses for effectual drainage, this City should be far from unhealthy. Though our mortality does not exceed the mortality of London, we are still behind the British in all measures of sanitary reform. Sanitarians declare it to be quite possible to diminish by ten per cent. the number of deaths that occur in New York. If this be true, the subject is surely one that deserves more attention than it receives from legislators and philanthropists.—*New York Times*.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, SEPTEMBER 1st, 1860.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	53	47	100
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	54.3	48.0	102.3
Average corrected to increased population, . . . . .	..	..	116.7
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infantum.	Scarlet Fever.	Pneumonia.	Measles.	Smallpox.	Dysentery.
8	22	4	4	0	2	4

METEOROLOGY.

From Observations taken at the Cambridge Observatory.

Mean height of Barometer,	29.626	Highest point of Thermometer,	77°
Highest point of Barometer,	30.028	Lowest point of Thermometer,	51°
Lowest point of Barometer,	29.681	General direction of Wind,	Westerly.
Mean Temperature,	67°.5	Whole am't of Rain in the week	0.551 in.

COMMUNICATIONS RECEIVED.—Case of Hydrophobia. Twins of unusually large size.

BOOKS.—Skin Diseases, and their Remedies, by Robert J. Jordan, M.D., &c. (From the author.)

ERRATUM.—On page 79, line 14, for "micturition," read *nutrition*.

Deaths in Boston for the week ending Saturday noon, September 1, 100. Males, 53—Females, 47.—Accident, 4—congestion of the brain, 2—disease of the brain, 3—bronchitis, 1—cholera infantum, 22—cholera morbus, 2—consumption, 8—convulsions, 3—croup, 1—debility, 1—diarrhœa, 6—dropsy, 1—dropsy of the brain, 5—drowned, 2—dysentery, 4—epilepsy, 1—scarlet fever, 4—typhoid fever, 2—disease of the heart, 1—intemperance (delirium tremens), 1—disease of the kidneys (Bright's), 1—congestion of the lungs, 2—inflammation of the lungs, 4—marasmus, 2—neglect, 1—old age, 2—pericarditis, 1—premature birth, 5—spina bifida, 1—smallpox, 2—tabes mesenterica, 1—teething, 2—tumor (ovarian), 1—whooping cough, 1.

Under 5 years, 66—between 5 and 20 years, 5—between 20 and 40 years, 17—between 40 and 60 years, 7—above 60 years, 5. Born in the United States, 87—Ireland, 11—other places, 2.

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No. 7.

A CASE OF RABIES IN A DOG, AND OF HYDROPHOBIA IN A
CHILD.

BY WILLIAM INGALLS, M.D., WINCHESTER.

[Read before the Middlesex East District Medical Society, August 29th, 1860, and offered for publication to the Boston Medical and Surgical Journal, by a vote of the Society.]

THERE are many who yet doubt if there is such a disease as Hydrophobia. When a dog or other animal is "rabid" or "mad," the common expression is, "he has hydrophobia." This is not correct. An animal that is "rabid," has *not* "a dread of water," therefore the word "hydrophobia" is misapplied; it should be, "he has rabies," or, "he is mad." Man, suffering from a disease, the result of a bite by a rabid animal, has "hydrophobia," "a dread of water," and the expression or word is correct.

I have recently witnessed a case of rabies in a dog, and of hydrophobia in a child, one the result of the other; and as I believe I can give an accurate and minute account of both, and as I think such a contribution must be, or may be, of value to the literature of the subject, I respectfully call your attention to the following report, which has been drawn up with much care, and with a faithful regard to *facts*.

Mr. S. owned a white poodle dog, eight months old, which was presented to him by Mr. C., who resides in another part of the house of Mr. S. The dog was remarkably intelligent for one of his breed, affectionate, unexceptionably neat in the house, never going away from home, and answering *all* purposes of a perfect watch dog, barking furiously, when, at night, strange persons or animals came about, and was generally obedient. Hence, the animal was valued most for its real usefulness.

On the evening of the fourth of July, 1860, the dog, having refused to eat his supper, disappeared. On the evening of the fifth, having heard of his whereabouts, a son of Mr. S. found him, tied, in the house of a man who had taken him in, and the back of whose

hand he had *slightly* wounded with his teeth. The dog followed his young master home, snapping at him once, certainly, during the walk.

Arrived home, he refused to *eat* or *drink*, and *seemed guilty* of having done some wrong. He was washed, and during the bath, *took the hand of his mistress into his mouth, but did not bite*, held it a moment, and let it go, *looking ashamed the while*. After this, he was partly clipped by his master, and during this process, snapped several times at his finger, *not* drawing blood, and upon receiving a little box upon the ear, jumped down from the chair, and crept under the table, as he always did when punished. He was left to sleep in his usual place on a rug in the kitchen. A little son of Mr. S., after having been in bed a while, came down stairs for a drink of water, and was bitten on the calf of the leg, the result being more like a bruise than a wound.

After the dog was released, and while running about, he was noticed frequently to sit or squat down on his rump, drawing his hind legs forward, indeed the end of the back-bone was dragged upon the ground. His voice was peculiar, and, although indescribable, yet, as his master said, should it ever be heard again, it would at once be recognized. It seemed to be in the throat, and each attempt was apparently stopped, as if he could not bark out what he wanted to.

July 6th.—This morning, before the family was up, the dog came into his master's chamber, jumped upon the bed, was patted and talked to by his master, and the faces of both master and mistress were smelled at by him; then, jumping down, he ran into the children's room, where the same thing was gone through with.

About this time little Freddy C., a bright and beautiful child about thirty-three months old, came into a room where the dog was, to play with him, when the dog sprang up and wounded him upon the left side of the upper lip, the wound bleeding profusely. This day, also, *he went through water and lapped it eagerly and in quantities*.

The dog was tied up a part of the day, during which time he seemed anxious to "get at" some persons who came into the premises. Was let loose at night. Would run away some little distance, but would return readily on being called. He was extremely restless, jumping from one chair to another, remaining but a moment in each; would catch flies—seemed possessed to do so, making prodigious leaps to reach them. During this night he tore his blanket to shreds.

7th.—When the man came into the kitchen, early in the morning, the dog snapped at him, but his boots protected him from injury. The dog was now tied, by a cord, to a tree, by his master, and for a few moments he played with him, jumping up to his knee. but suddenly he made a dart a little behind his master and bit the calf of his leg through the pantaloons. During this time the dog

seemed to be *natural* in his movements, but it was recollected afterwards that there was a *peculiar expression* of his eyes.

From this time, the dog was thought to be in, at least, a questionable condition. Before this, the change in his disposition was attributed to his temporary absence and loss of appetite.

While a room was being prepared in which to secure him, a neighbor's dog with which he had been in the habit of playing, came into the yard. Upon seeing him, Frisk broke his cord, and pursued the other dog some little distance and "fought him" for a few moments until his master's man called him off; Frisk was obedient, even then, and came back to the house. It was now 10 o'clock, and I, being asked to give my opinion as to the condition of the dog, whether he was rabid or not, will here begin a record of what I myself observed, said and did; the preceding being gathered by careful questioning, and patient answering, from Mr. S., the dog's master.

The dog was shut up in a tool-room in the stable, there being on one side a window admitting plenty of light, and opposite to that, a sliding door, opening which, for the space of an inch or two, we made our first observations upon the dog. He exhibited almost ceaseless restlessness, being quiet, at no one time, longer than thirty seconds. During the many minutes we stood at the opening, he gnawed the door (the front teeth being placed with force against the surface of the door, and at no time on the edge), making no attempt to get out or to come through the opening. While not gnawing, he stood for the most part looking straight forward, not particularly at the crack or opening, but in different directions; the eyes being bloodshot, and with a "hang-dog," or guilty look. Upon our closing the door and looking through the window, he quickly perceived us and looked up at us for a few seconds at a time, but with no expression of intelligence. There was *no* frothing at the mouth, and he did not "give tongue." I learned that there had been no fæcal evacuations since his return on the night of the 5th, but he *urinated many times, and always lapped the urine up.*

I could not say, positively, that the dog was rabid, but I most forcibly urged that he should be so confined as to prevent the possibility of escape; that he should be supplied with food and drink, and that we should await the result.

Not long after my visit of this morning, a neighbor, believing all these symptoms attributable to costiveness, administered castor oil. On putting his hand upon the dog's head, it was snapped at; thick gloves were procured, and the oil given without harm. Some twelve hours after, there was a small fæcal operation.

By request, I examined the wound upon little Freddy C.'s lip; it appeared to be a scratch, and in good healing condition. I advised that it should be let alone, and, in reply to a question, said, "I cannot believe there will be any evil result from the wound."

I may be here allowed to say, as in a note, that "cutting out," and "cauterization," and many other things, came vividly before my mind; but the following was my process of reasoning, and induced me to answer as I did.

Twenty-six hours have elapsed since the wound was made. I have known many, and have been a witness of quite a number of cases of bites of rattlesnakes and moccasins, and I can say that recovery takes place *only* in those cases in which treatment is begun *at once*. Delay is fatal. So I believe it to be after a bite from a rabid animal. In this case we are not *certain* that the dog is mad; the wound is in a healing condition; the child is well; the time for action seems to me to have gone by, even if the dog be mad; the chances are greatly in favor of there being no detriment to the child; then why spring a mine of terror to the family and of excitement to the neighborhood, by cutting or roasting. Of course, I have *now* my regrets at not having "done something," but, I am happy to say, they arise solely from my own reflections, and from nothing whatever that has been said or intimated by others.

8th, Sunday.—His master watched the dog a great deal this day, and reports that he seemed to be in the same condition as heretofore. Several times he poured a stream of water from a watering pot, the nose being taken off, through a crack made by sliding the door back a little, and as soon as the stream was withheld, *the dog would come and lap of the puddle made*, and this was done more than once. He was not seen to eat meat or anything else; but Mr. S. thinks he saw him *once* lap a little milk.

9th.—This day, at half past 12, the dog died peacefully and quietly, having *no* convulsions, and making no manifestations of suffering. I made a *post-mortem* examination of the dog 20 hours after death, and there seemed to be *no* abnormal condition of any organ of the chest or abdomen; there seemed to be, however, an unusual *dryness* within both the cavities, the small intestines, for instance, sticking to the fingers instead of being inclined to slip. I did not *dissect* the throat, but examined it quite well, and could see nothing unusual. Brain not examined. This is all I have to record concerning the dog.

On the 13th of August, forty days after the child was bitten, I learned from the father the following:—

"Freddy was somewhat restless last night, and I went to him frequently, my wife being asleep, and I not wishing to disturb her. At 3 o'clock, *he asked for some water*; I carried some to him *and he would not drink it*, and motioned with his hand and arm to take it away. It came over me at that moment what was the matter with my child; I felt that he was doomed. I did not call my wife until morning, up to which time his restlessness increased. He has seemed *to have no pain nor even distress*, but we cannot get him to eat or drink anything."

I saw Freddy at 10 o'clock, A.M. And as, when I entered the room, he did not wish me to look at him, his mother took him in her arms. During the few minutes he was there, he was not still a moment; the head would move from one shoulder to the other, then to the breast, then back again. In a very short time I gained his confidence, and he suffered himself to be placed upon the bed, upon which was his favorite box of sea-shells. I found his pulse about 100, regular and natural; skin pleasant to the touch; tongue not coated towards the end and edges, thinly so upon middle and back part; breath not offensive; the expression of his large, lustrous eyes, his beautiful feature when well, was changed, but I cannot describe the change; let it suffice, that they were slightly injected, and that they seemed not to rest for a moment on any one object, but glanced from one to another incessantly. While lying on his back, he would suddenly and quickly start up into a sitting posture, play for a few moments with his shells, and then throw himself back again. When water was offered to him, he *did not become convulsed*, nor exhibit any violent emotion, but *quietly* declined taking it, either by putting his arm up before his face, or by turning his head away, or doing both at once. He had had no dejection for twelve or fifteen hours, but had urinated two or three times, and this *did not produce distress of any kind*.

I am in the habit of using a mixture consisting of sixty grains of calomel, and three, each, of pulverized ipecacuanha and opium, thoroughly rubbed together; of this mixture, I ordered two grains to be given every two hours in dry sugar. He "got down" the first and a part of the second, but there was so much resistance and distress occasioned by their administration, that no more attempts were made.

This report need not be prolonged. By advice of my friend Dr. Stevens, of Stoneham, who saw the child with me in the evening, I injected one-eighth of a grain of acetate of morphine under the skin of the arm; next morning, I also injected *one half* a grain; neither of these applications produced the slightest appropriate effect. About two hours before death, which occurred at half past 12, M., on the 14th, he took into his mouth and chewed, but did not swallow, a little gingerbread. About forty or fifty minutes before death, he became generally convulsed; I gave him ether, and he was under its influence when he died. The restlessness continued to the last. Many times he was asked, "Does Freddy feel sick?" the invariable answer, until an hour or two before death, was, "No;" but towards the last, he said "Yes." He did not bark or howl like a dog; nor were his movements anything but those natural to him.

In the foregoing, I have purposely been minute; it may be, prolix. Have you, Messrs. Editors, a particle of true sentiment or imagination in your composition? If so, then, while reading this report, you have seen the picture of a domestic circle, some read-

ing, some conversing, and others playing with the little children—*while a rabid dog* was running about among them, perhaps *jumping into a neighboring chair, seeking caresses*, and so on. Then, *can* your reporter be too minute in his description of the symptoms of rabies in this “poodle dog,” when there are many hundreds of the breed in the State? The symptoms of rabies in different dogs must differ, as a matter of course; but in all essential particulars, there must be a close resemblance. Some are wild, tearing and noisy in their demonstrations; others are not so, but are affectionate, *gentle*, even, seek the caresses of their masters and those with whom they are acquainted; and during these times they suddenly snap and bite. The reason we have so few authenticated reports concerning rabies, is, that as soon as a dog is supposed to have the disease, he is destroyed. It would be well for the cause of humanity, if every suspicious case, hereafter, could be faithfully examined to the end, and reported.

THE BED CASE,

OR AN IMAGINARY AFFECTION WHICH CONFINES THE PATIENT IN BED, AND IS PRECEDED OR NOT BY DISEASE.

BY WALTER CHANNING, M.D.

[Continued from page 119.]

AN important fact in the history of this disease has not been stated. It is this:—In few, if any diseases, does recovery take place so suddenly, so unexpectedly, and so perfectly as in this. The circumstances under which recovery happens are as striking as is the recovery itself. It would seem that it could be hardly otherwise than that a preparation for this has been making or made a long, or at least some time before, and that there has been only some one thing wanting—that special agency, which has been so suddenly followed by cure. Let us offer some examples.

Mrs. — had been a-bed between one and two years. The disease followed labor. She had been treated by different physicians, but without any benefit. It was impossible for her to move, or to be moved, without such suffering as to lead her friends to put off another experiment of the kind as long as possible. When I was called in consultation in this case, Mrs. — presented just such an appearance as her previous state would be most likely to produce. She had, in the first place, passed through a very severe labor, and had never recovered from its immediate effects.

The most pressing trouble in this case was a sense of “giving way,” “falling to pieces,” upon every attempt to move. This state of things was referred to the pelvis as its principal seat. A belt of strong webbing, with an interposition of India rubber, and a pad for the symphysis pubis, was prepared, and on my second

visit it was applied, and Mrs. — at once taken out of bed. Her general health was slowly regained; but from this time it was obvious that recovery was in progress, and the usual characters of the Bed Case soon disappeared. Here mechanical means were used to prevent the alleged immediate effects of motion. Confidence soon came, that effort was possible, and practical results daily added to confidence, and the patient was thus saved from a disease which might have made a long life miserable.

Mrs. — gave birth to her first child between four and five years before I was called to see her. She had kept her bed for most of the time since. The disease had slowly made progress, but had for years been confirmed. Time enough had elapsed for all the direct effects of labor to have passed away. She was young, and had always before delivery been in excellent health. She presented to me every appearance of perfect health. Her complexion was clear, the skin smooth, and well colored. The flesh was abundant. In its fulness, it might have been thought morbid. Appetite good. Bowels regular. Pulse natural. I could discover no symptom of disease. Yet she could not move, or if motion was attempted, spasms came on which so alarmed the attendants by their violence, that attempts to move were rare, and soon no more was done than was made absolutely necessary by circumstances which could not be neglected. The simple act of feeding, or of being fed, required the most skilful management, or alarming spasms would be produced. A very careful examination was made into the whole facts of this case, and I became satisfied that the only chance of cure here, was in doing what seemed so dangerous, namely, getting Mrs. — out of bed, and obliging her to use her own will, and her own muscles in getting back to it again. This was at first only hinted at. It was declared to be impossible, or that life would be endangered by it. Several visits were made, and medicines were prescribed, and taken. At length it seemed to me the time had come for action. I was alone with Mrs. — in her chamber, and stated that I could no longer attend her, unless she would follow my directions; and that she must leave her bed. I should have said that her house was in a large field, with no house near it, and nobody in her house. All the doors were left open. She consented; and with great trouble, and after much time, she was persuaded to make the attempt. With great difficulty she was brought to the edge of the bed. She of course aided in accomplishing this, for it would have been utterly impossible for me, or for any one person, to have moved such a mass of helpless matter. Mrs. — reached the middle of her chamber, *and there I left her.* I did not see Mrs. —, professionally, from this time.

I was sitting in my book-room one day, when a medical acquaintance was showed in. After some chat on matters and things in general, said he, "Have you seen Mrs. — lately?" I said I

could not bring her to mind. "O," said he, "she is the person you saw some months ago, in ———. She was bed-ridden. Being a townsman of mine, she called on me after your last visit, and I had her removed to my house in ———, and I have cured her." I remembered that *last visit*, and Mrs. ——— came up in her amplest proportions, standing alone, in that lone house. I answered indifferently, I was glad; how did it happen? &c. &c.

"I cured her mesmerically," said Dr. ———.

"How?" asked I.

"Mesmerically; and I have called to tell you all about it."

"How did she get to your house? She lived some two or three miles off. She did not walk, surely; and to have carried her must have been a *caution*. Did she retain her old admeasurements as when I last saw her?"

"I will tell you. We got her to ———, of course. I found her perfectly helpless; spasms upon the least motion."

Said I, "'twas strange she survived that drive from ———, and after having been taken out of bed as above narrated, and left alone."

"A terrible journey was that day's travel. She remained in bed till she was thoroughly rested, you know, and then I set about the cure. We first got her out of bed. It was something to do it, I assure you. She was bent upon being sick, or upon keeping in bed. At length I succeeded, and she was put into the chair. I told her to move. It is *no use*, Mrs. ———; move you must. She would do no such thing. At length I began with mesmerism. In the first place, I excited the organ of veneration by putting my fingers upon it with a will. When this was perfectly done, or Mrs. ——— had come entirely under my power, I excited the organ of locomotion, and bade her to 'walk.' [Mrs. ———, by this time, had become a loco-motive.] Straightway she rose and walked; and walked has she ever since."

I do not question a word of this narrative, and how can I? For, a short time after, I saw Mrs. ———, as fairly restored to her legs as was ever any body to anything or things. She was not as heavy as when I last saw her. Exercise had done something to bring her within some compass. She was very glad to see me, and stated her own notions of the case with great pleasure.

I said I did not question a word of this narrative. I am not one of your *credat judæus* class, but have respect for the doctrine of human credibility, or that other word, credulity, which so nearly resembles it in sound, that they may be very conveniently used, the one for the other. I do not know that I should go so far in the matter of *faith*, in the popular use of the word, as did Sir Thomas Browne, which you doubtless recollect, but in certain uses of it I should not be far behind him.

This case strongly reminds me of one which made a very great noise in the time of it—that of Harriet Martineau. In her case mesmerism had its perfect work. Miss M., it is said, had not much

faith in some other matters, but her faith in Mesmer was without a shadow of doubt. Several years ago she was ill, as it was said, of cancer. Before, or since that, she has suffered more from a *disappointment*. And since both, she has climbed the "proudest pyramid of them all, and which has lost its apex, and stands obtruncated on the traveller's horizon." She has listened to the music of the sun's rays, as the early morning breezes sweep by the statue of Memnon. And above all, she has been a Bed Case. Her Life in a Sick Room—I think that is the title—is the moral history of her case. If there were ever any one, nursed, petted, coddled, it was Miss Harriet Martineau. Friendship lived and moved and had its being for her. For her was spring and summer, autumn and winter. The sun shone for her. The spring spread out its offering of blossom; and autumn, for her, garnered all its harvests. How patient she was. How patient her friends. Exquisite suffering brought with it no complaint, and privation was better than enjoyment. Everything was tried for her cure. Who could withhold skill from such a claim? Who could deny drugs, if drugs promised any good?

Years and years passed by, and Miss M. pined and smiled in her agony. I think five years were completed, when the light began to dawn upon that long moral polar night. It came in the shape of Mr. Surgeon Atkinson, and its beaming was mesmerism. The passes were made. "I still live," in almost dying utterances came sighing from her. Mr. Atkinson broke down under the weight of his accomplishments. He was, in the popular language, "used up." An Irish girl succeeded, a servant of all work in the family. She was full of animal magnetism, and bestowed it as freely and as successfully upon Miss Harriet as she had upon the *grate hob*, or any other object of her professional care or skill.

It is quite unnecessary to pursue this matter any further. Miss Martineau recovered perfectly, and ceased to be a Bed Case, by the mysterious agencies of mesmerism. She has lost all her old prejudices, or left them all in her sick room; so that in regard to affairs of faith, popularly so called, I suppose she remains pretty much what she was before.

Mrs. —, aged between 25 and 30, mother of one child, did not recover well after her confinement, and gradually became a confirmed Bed Case. I was not called to see her until many medical men had already seen and prescribed for her. My professional history contains many such facts. Within the year in which I write, I have, in two cases of disease, been the ninth physician consulted, just the ninth. The younger and the older gentlemen of the calling had already seen the patients. Sometimes this leads to much amusement for me. Being called when the patient is thought hopelessly ill, everybody else having been tired out, how often has my visit been thus greeted:—"Why! have you sent for him? Then it must be pretty much over with me, for he is never called till people are just dying." The earnestness of the appeal shows that death

is not so nigh the door as apprehended. But let this pass. Distinction comes through various channels—now suicide, now murder, &c. &c. Its pursuit, and its attainment, would make one of the saddest and most interesting of human histories.

I was called at last, and *last*, to see Mrs. —, and certainly of all Bed Cases her's was the worst.

“The trail of the serpent was over it all.”

Not an organ had escaped. From head to foot, everywhere there was disturbance. Vision was always indistinct, sometimes wanting. Light and air were intolerable. The hearing, taste, and smell, all were perverted. The heart, the lungs, but especially the stomach, had most yielded to the power of the disease. The appetite was coaxed by every species of the most delicate food. From one friend came daily a potato, which was cooked as nobody else could cook a potato. And so of everything else. The right lower limb was permanently bent at the knee. To move it was agony; and it may be understood how miserable was this state of things, when it is added that Mrs. — was always on her back, and had, in this position, to keep the knee elevated, and bent almost at a right angle. The uterine system was disturbed in its functions, and these were painful. A morbid vaginal secretion was the substitute for its healthy one. Emaciation existed in the extreme. Suffering had worn the patient almost to a skeleton. The skin had acquired that peculiar hue, of sallow and dark, which is so characteristic of long and painful disease, and which so often indicates its malignant character. It was not believed, however, that this was the tendency, or state of this case.

The mind had yielded to the body. That absorption into one's self, which comes of such maladies, was complete. Complaint had become a natural language, and spoke out on all occasions. The mind was weakened in regard to its best uses. Its whole power had come to be directed to the disease, and to a perpetual effort to show how grave it was, and how impossible it was for the patient to be other than she was. The tone of the voice got its character from the mind, and was querulous, repining, or sad, as the moral state determined. The sleep was every night disturbed, or often wanting; and this added greatly to the general discomfort, or misery.

The treatment was to be directed to the mind and body. As to the first, it was clear that argument would have no weight. Intellectual habits, the product of long experience of suffering, had become the natural, daily life of the mind; and attempts to alter, or to replace this by anything else would only serve to give to it strength. Persuasion or any other moral agency could do nothing here; and no relation of other individuals could be so near as was the patient to herself. The only safe sympathy for her was in a quiet, patient hearing of the daily repeated story; or in mak-

ing such inquiries concerning it as would show to the sufferer that the daily repetition of the same was patiently received.

I remember years ago I had a conversation with the late Dr. Chaplin, who was so deservedly distinguished by his management of the insane. Said he, "I never argue with them, for as you can never refute or convince them, your argument gives them support in all the views they may entertain. I always receive what they say respectfully, and leave its absurdity or whole wrong to exert its power upon their own minds. I remember," said he, further, "that a lady from the South, of very ancient and proud descent, and much wealth, was placed under my care. Her insanity turned mainly upon the idea that she was a drunkard, and a daily disgrace and insult to her family. I agreed with her perfectly that to be a drunkard was all she said of it—that I was surprised that a lady of her appearance and relations should so disgrace herself, &c. The first appearance of improvement in this case was a disinclination to have the subject of drunkenness referred to, and at length the cure declared itself by the patient denying that she was or ever had been a drunkard, and manifesting the greatest displeasure at any allusion to the subject." In another case, a patient whom I had placed under his care, declared herself to be a ghost. The idea was admitted by Dr. Chaplin, and one day at dinner was alluded to in the surest way to reach the mind most favorably, namely, that, for a ghost, she seemed to have a remarkably good appetite, and eat an excellent dinner.

In the cases we are now proposing to treat, the mind is in a condition of such unsoundness—such weakness—that all attempts to disprove its beliefs and notions, add to existing discomfort, and directly tend to its increase. The great object should be to get the confidence of the patient, as the only and best means for the application of remedies to physical conditions. Such a use of the mind is a perfectly legitimate one, and he who fails to make it may never cure the disease.

In the physical treatment of Mrs. —, the indications were to regulate the diet—relieve pain—procure sleep—restore tone—straighten and restore motion to the bent and stiffened limb—to bring the senses into healthful exercise—admit to the lungs fresh air—(Mrs. — always living in close, shut-up rooms)—to take her out of her bed, and finally out of her house.

I. *To regulate the diet.*—This was begun by exclusion. The little table at the bed-side, with its multifarious and multitudinous luxurious articles of food, with its nice white covering napkin, which hid all from the profane, was gradually to be withdrawn. The hours of eating were to be gradually reduced to their usual number. All this was accomplished after so much trial and time as the circumstances of the case demanded.

II. *To relieve pain.*—This was not easily done; or rather it was done at more or less risk of making the bowels more torpid

than the entire want of exercise, and other difficulty-regulated things produced. The valerianate of morphia, the liquid extract of valerian, and various subnarcotics, were tried, and the object more or less accomplished; and the next indication,

III. To procure sleep, answered.

IV. *To increase strength.*—The ordinary means to do this were used. Chalybeates were much relied on, while a powder of bismuth and calomel, quinine, gentian, &c., was also given.

V. *To straighten the limb.*—The left limb was bent upon the pelvis at the hip-joint, and at the knee; while the foot had long remained in the same position—the knee being drawn high enough for it to rest on the sole. This was the most important indication, viz., to straighten this limb, which would be to give it power of motion, and this it had in its present state only in the smallest degree. To touch, to rub, or to attempt to move it, occasioned great suffering. The treatment was begun by fomentations, liniments, the stereotyped course in such cases. But upon this followed a method which accomplished the object, and in the most thorough manner. A string was attached to the foot by a band passed over the instep and under the sole, which played freely over the foot of the bedstead as over a pulley; to this was attached a weight. The apparatus was allowed to be put on, and to be used. The weight was gradually increased, and the limb was straightened. The most important object was thus accomplished, and while proceeding, the other indications were also slowly getting to be answered.

VI. The senses were next, or rather with other things, receiving attention. The room had been kept perfectly dark. The light was now permitted to enter it. This required great caution, and was, perhaps more than any other indication, difficult to be begun or pursued. Should by chance any portion of the treatment produce trouble, give pain, or produce any annoyance whatever, mental or physical, the chances were that the whole course would have been rejected, and Mrs. — reduced to helplessness for life. The will loses nothing of its strength in the Bed Case, and only array it or get it arrayed against physician or treatment, and their function and influence at once will cease. The sense of hearing was managed just as was that of seeing, and noises came to be tolerated, which before had been annoying in the extreme. With the return of tone of general strength, the senses acquired the power of use.

VII. *Ventilation.*—It was pretty clear if the brain was to get tone, and exert a healthful influence over the organic functions, that it must be visited by pure blood. The purifier of the blood is the air, and the purer the air the better the blood. But Mrs. — having lived so long in such perfect seclusion from light and air, and the attention having been so long directed to every part of the body, especially the surface—the skin—and every change in

sensation over every inch of it at once noted, and provided against, that a most difficult thing was to be done when the outer air was to be admitted into her almost hermetically sealed chamber. This was accomplished. The key-hole was unstopped. The bags of sand, or what not, were taken from the bottom of the doors and windows, and the air found its way into the room again.

VIII. The last indication was to remove Mrs. — from her bed, and from her house. The first was attempted soon after motion was restored to the limbs, and it was soon done. Mrs. — had acquired a more healthful consciousness of power, and a willingness to exert it, which so often accompanies the acquisition. She was willing that an attempt should be made to remove her from one place to another, and this was both prophecy and promise of recovery. She was taken from bed. This was well borne. In a short time it was proposed that she should go abroad. This, too, was acceded to. Mrs. — suggested that she should attempt a visit to some friends, some forty miles off, stopping by the way whenever she was so fatigued that she could proceed no farther. The suggestion was adopted. She soon undertook the journey by rail, and, to her entire surprise, found herself at its end before fatigue demanded her to stop. Mrs. — remained at home some weeks, gaining flesh, strength, and true pleasure every day, and called on me when she returned to the city in possession of apparently perfect health.

This was to me, and more especially to the patient, a case of the deepest interest. The question was, if it should be abandoned by the profession as hopeless, and the patient left to gradually accumulating suffering and helplessness, or whether further attempt should not be made to prevent all this, and apparently to save life. It was agreed to try. An encouraging circumstance it was that Mrs. — became gradually conscious that power to be better remained, and acknowledged it. Few facts in all recoverable chronic diseases are more encouraging than this, and especially when they get most of their symptoms, and all their adhesiveness, from having their source mainly in the lesions of the nervous system. It is hence comes their helplessness—their utter helplessness—the extreme difficulty of their management—the exhaustion of friends—the frequent changes of nurses and physicians. In other, and in the gravest chronic diseases, consumption, for instance, hope ceases only with life, and cheerfulness and effort for recovery mark its whole course.

One of the severest forms of the disease occurred in the person of Mrs. —, some years ago. She was of a family in which the nervous temperament had the fullest development, and in which insanity had shown itself. Our disease, *Bed Case*, followed occurrences which deeply affected the mind, the natural power and good culture of which, did not save it from the injurious influences of strong moral agencies. She took to her bed when she

felt no longer able to keep out of it, and the Bed Case became established. Nothing could induce her to move. Her friends were among the kindest people living, and paid her the most devoted attention. Months and years came and went by, but brought with them no relief of this terrible malady. At length her father—a merchant—failed, and was left without property. It became necessary for him at once to leave his house, and to take his family some thirty miles into the country, where he had friends who would receive him amongst them. The great question was, how Mrs. ——— should be disposed of. She had become a fixture; for years she had not been moved—she could not be moved. A nice point was to settle how she should be got down stairs, and it was decided that a window frame in her chamber should be taken out, and she lowered down in a chair to the carriage. This plan, however, was abandoned. Arrangements were next made for Mrs. ———'s best accommodation on the road. She was to go so many miles the first day, so many the second, third, &c. The day of departure came. Mrs. ——— was brought from her chamber in the most legitimate manner to the coach, and started on her journey. Strength came as she tried it. She drove by the first stopping place, the second—stopped for lunch and dinner, and towards evening reached, in excellent condition, her new, country house. From this day, Mrs. ——— went to bed at the same hour with others; and, better, got up when they did; in other words, was radically cured.

Another Bed Case has been partially reported to me, which began entirely in mental cause—which lasted, I think, longer than did the last—in which the mind was as striking for its power and growth, and from which the patient, Miss ———, rose from her bed most unexpectedly, and by her own will, and has enjoyed most excellent health ever since. I regret that I cannot give the details of a case which was deeply interesting to the friends of this long and patient sufferer, and the recovery from which gave the sincerest pleasure.

[To be continued.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

AUG. 13th.—*Employment of Pessaries.* Dr. FIFIELD exhibited a pessary made of solid gold, after the model of Zwank, which was made for a patient who had obtained great relief from this form of pessary, but who was annoyed by the frequent breaking of the instruments, from the corrosion which other metals underwent in the vagina. Dr. F. was inclined to think that the India-rubber with which the pessary is coated, in order to make it soft, acted upon the metal.

Dr. BIGELOW observed that silver instruments would be acted upon by the sulphur contained in the vulcanized rubber.

Dr. STORER had used these pessaries with great success. The chief objection to them is the India-rubber, which causes heat and abrasion; but he had known them to be worn five or six months without inconvenience. Gutta percha is preferable to rubber for a coating.

Dr. PUTNAM remarked that different women exhibit a singular difference in their toleration of pessaries. Dr. Simpson, of Edinburgh, once showed him a patient who had worn a stem pessary for more than six months without inconvenience, during which time she had walked over a large portion of the Highlands of Scotland. He thought that the horse-shoe pessary of the late Dr. Hodges, of Philadelphia, was, on the whole, the best instrument of the kind, but it had the inconvenience of preventing coition.

Dr. STORER said the chief objections to pessaries were owing to carelessness and mismanagement. When properly adapted, they may be worn a long time, although they ought to be frequently removed and cleansed. Three years ago, he introduced one of Hodges's pessaries, which the patient wore thirteen months without removing it. In another case, the patient wore a ring pessary for six months without inconvenience; when Dr. S. removed it, he found it embedded in the soft parts. Some practitioners object strongly to pessaries, just as others do to ergot, and for the same reason; the less they use them, the greater the objection.

Dr. JACKSON said, when he was a student a gauze bag, filled with powdered bark, was much used as a pessary, and answered extremely well. It acted partly mechanically and partly by its astringent properties. Pessaries are often left a long time in the vagina. In 1851 he saw several in different museums in Europe, which had been removed from the vagina after having remained there a long time and been forgotten; they were more or less encrusted with calcareous matter.

Dr. BIGELOW had seen, in a considerable number of cases, a multitude of instruments tried and thrown aside, because they could not be worn, or because they failed of their object. He thought a well-adapted, proper-sized sponge made the most convenient pessary in cases of simple descent of the womb.

At the subsequent meeting, Dr. Bigelow said that in corroboration of the above remarks, he had that day seen a lady who, four years ago, had tried various kinds of pessaries, under his direction, for a bad prolapse of the womb, without success, until he was fairly ashamed of putting her to so much trouble and expense. At last, he recommended the sponge pessary, which the patient had worn ever since, with perfect ease and relief. She introduces it every morning, and removes it at night. It is soft, elastic, and does not become encrusted from retention. She rolls up a flat piece of sponge, after moistening it, and introduces it by means of a cylinder of wood. In another case, the patient, a very old lady, who was troubled with great prolapsus, causing retention of urine, and often obliging her to push up the tumor before she could urinate, obtained perfect relief from the sponge pessary. Dr. B. had seen more success from this form of pessary than from any other.

AUG. 27th.—*Swallowing Stones and other Indigestible Substances.*
Dr. READ exhibited a quantity of stones, varying in size from that of

a pea to that of a cherry, which had passed through the intestinal canal of a boy, 7 years old. Having seen one of the performers at a circus swallow, or pretend to swallow, stones, he resolved to follow his example, and in the course of one afternoon he swallowed *sixty-four*, the united weight of which was a little more than nine ounces, and which filled an eight-ounce bottle (one used for putting up sulphate of quinine). The next day he was visited and prescribed for by Dr. Underwood. The stones could easily be felt through the walls of the abdomen, and, upon percussion, could be heard to rattle. There were no severe symptoms. Castor oil was freely given, from the effects of which, in the course of three days, they all came away.

Dr. WHITE said he had once dissected an alligator, in whose stomach a similar quantity of stones was found, which could be heard to rattle when the animal was shaken, before the abdomen was opened.

Dr. BIGELOW remarked that it was a grave question whether it were best to give cathartics, in such cases, or to abstain from active treatment. He thought that if the foreign bodies were suffered to pass gradually, enveloped in soft food, they were less likely to do harm than when their progress was hastened by active medicines. The digestive tube possesses a power of propelling bodies through its entire length, in a way which it would be very difficult to imitate artificially. Sharp-pointed articles, like pins, &c., probably go with the blunt end foremost, or if in a different position the points catch, they are possibly carried back, by a reversed motion, and disengaged. At any rate, instances occur to every practitioner in which sharp and dangerous articles are swallowed without harm to the patient, especially if the intestine be not irritated by cathartics.

Dr. HOOKER had met with a good many instances, in the course of his practice, in which similar substances had been swallowed without evil consequences. In one case, however, the patient, an old lady, after swallowing a piece of dried-apple, was seized with pain and vomiting, and died in twenty-four hours. The autopsy showed that the apple had lodged in the cœcum, where it had given rise to inflammation.

Dr. TYLER said it was the commonest thing for patients at the McLean Asylum to swallow small objects, such as pieces of glass, coal, stone, thimbles, &c. Lately, a woman swallowed a crochet-needle, which was voided without inconvenience. Silver thimbles were quite a common article of diet. The treatment generally employed was to give plenty of farina-gruel, or porridge, without resorting to medicine. Among some of the patients was a curious propensity to swallow toads, and there is now in the Asylum a man who has swallowed half a dozen live toads, without injury.

Dr. ADAMS said that while he was a student, residing at Deer Island Hospital, in 1853, a young man there had symptoms of obstruction of the bowels, with a tumor in the abdomen, and great tenderness. It was found that he had eaten freely of cherries, and, in accordance with a common notion, had swallowed the stones to prevent indigestion. He afterwards passed such an enormous quantity of cherry-stones, that the nurse had the curiosity to collect them, and 1077 were counted, besides many which were lost.

Dr. JACKSON said that some years ago he examined a child that died with cerebral symptoms soon after swallowing a small stone. Nothing being found on dissection, he was surprised at the result, as these

small bodies usually pass without trouble. Dr. J. then showed a large collection of foreign bodies that had been swallowed, and had passed through the alimentary canal without causing any trouble; they were from the Society's Cabinet, and the cases have been already published in the Catalogue.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, SEPTEMBER 13, 1860.

MEDICAL PATENTS AND OUR NATIONAL CODE OF ETHICS.—In admitting the following remarks by Dr. Wadsworth, it is not our intention to open the question of patent medicines and patent instruments, or to discuss the laws of the American Medical Association in regard to them. There can be no doubt about the general wisdom and justice of the latter.

But, inasmuch as this JOURNAL, through its advertising columns, was instrumental in bringing Dr. Wadsworth before the community, in what some have regarded as an objectionable position, we deem it right that he should have an opportunity to say a word in his own behalf.

Although we do not consider ourselves accountable for any portion of his article, we think it proper to express our unqualified dissent from that part in which he shields himself under the wings of our National Legislature. The bird so often alluded to in Fourth-of-July orations has hatched too many bad eggs to warrant us in placing implicit reliance upon its maternal care. We have had, upon this side of the water, many instances to show that the medical profession cannot appeal to more incompetent tribunals than our legislative bodies, either National or State. We should not, and need not become law-breakers, but as an independent body, with scientific reputations to maintain and characters to lose, we must be our own judges of scientific and moral questions.

Messrs. Editors,—In the last number of the Boston Medical and Surgical Journal, I saw an editorial, headed "Medical Patents and our National Code of Ethics"; being a passing notice of an article, having the same caption, that appeared in the *New Orleans Medical News*. I have not seen the latter, but infer, from your remarks, that the communication referred to contained charges of violation of the Code of Ethics of our National Association, against myself for having patented a surgical instrument, called the Uterine Elevator—against certain *twenty-six* medical men for having recommended it, and also against yourselves for having advertised the same instrument.

The portion of the Code of Ethics aforesaid, is found in the 4th Section of the 1st Article in Chapter II. thereof, and reads thus:—

"Equally derogatory to professional character is it for a physician to hold a patent for any surgical instrument or medicine; or to dispense a secret nostrum, whether it be the composition or exclusive property of himself or of others. For if such nostrum be of real efficacy, any concealment regarding it is inconsistent with beneficence and professional liberality; and if mystery alone gives it value and importance, such craft implies disgraceful ignorance or fraudulent

avarice. It is also reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them."

You have correctly shown that those gentlemen who recommended the Uterine Elevator, are not responsible, for so doing, to either the letter or spirit of "Our National Code of Ethics," and for the unanswerable reason that the instrument was not patented when they recommended it—neither did they know it would be. The *twenty-six* M.D.'s, therefore, are no longer to be censured for having attested their decided opinion of the merits of a surgical instrument which is, "to the best of their knowledge, superior to any other invented for the same purpose."

It is true, I am an M.D., and I did patent a surgical instrument, to wit, the Uterine Elevator. This act constitutes the offence.

I am not desirous of entering the lists to break a lance with any one, but I shall assume and maintain the position that I have not crossed the spirit, nor the intention, nor the letter proper of "Our National Code of Ethics."

I have not violated professional honor, then, for two, the very best, reasons:—

1. Our National Representatives and Senators, selected for their extensive intelligence and profound wisdom, from among the people of this Union, have, in "Congress assembled," and after all due deliberation, virtually, to all intents and purposes, declared it to be right, expedient for the public weal, and honorable, to grant "letters patent" for inventions of new and useful improvements in surgical instruments, and the declaration was forthwith approved by the President of these United States, becoming, thereby, a law, which law has been repeatedly sanctioned by the highest judicial tribunal known to us; conspicuously illustrating the correctness of the old Roman maxim, "*Actus legis nulli facit injuriam.*" And this important law was enacted by our National Legislature long prior to the adoption of the Code of Ethics above named. Since, then, according to law, it is right, expedient for the public good, and *honorable*, too, to grant "letters patent" for a new and useful surgical instrument never before known or used, it follows that it *is honorable* to receive "letters patent" for a surgical instrument, and also that it *is honorable* to be instrumental in giving it publicity.

And who, I would ask, is expected to receive such patents? Why M.D.'s, most assuredly; they and they only can, for a moment, be supposed qualified to invent a surgical instrument worthy of a patent.

Moreover, is it strictly *ethical*, for a Society to adopt resolutions that directly clash with the established laws of the land? Of course, *such resolutions are a nullity, and the non-compliance with them no violation of real professional ethics.*

2. But again, the resolution, condemning the holding of a patent by a physician, explains its own meaning, and all that is intended to be embraced by it, viz., the discountenancing of concealment and mystery, and the promotion of beneficence and professional liberality; here is my second ground of defence.

So far as I, or anybody else, have gone counter to the explained meaning of the Code, so far the law, were it a lawful one, was transgressed.

Is there any concealment or mystery about a patent? Certainly

not. The obtaining a patent is the best means of giving the very greatest publicity and explanation to the article that receives its sanction. Nor is there, in the instance under consideration, any effort at variance with beneficence and professional liberality; indeed, the instruments are sold to physicians at *two dollars less than the ordinary retail price*.

It must be conceded that an improvement in surgical instruments would be better made if the manufacture of it were to be confined to the immediate superintendence of the inventor himself. The privilege, confirmed to the patentee, brings about this end. True, the article may cost rather more than if the manufacture of it were given, broadcast, to opposition, and everybody were to strive to make it as cheaply as possible. We all know that the Uterine Elevator, and every other important surgical instrument, should be made of the best materials and in the most faithful manner. This is brought about only by adequate compensation. Honor and efficiency are no longer thought of in connection with the instrument, when it passes from under the inventor's hands; and notwithstanding the acquisition of honor is, in the minds of some, a weighty inducement for inventors, and especially for those who are about to prepare themselves for the profession of medicine and surgery, to give their money, time, anxiety and labor; in short, to devote their lives (and find themselves) to the practice of physic, yet I think there are others, who, though they say a great deal about the honor-part, don't object to take a little money withal.

Now, because the Uterine Elevator is patented, is it to be abandoned, and all concerned ostracized by the medical faculty? Must the instrument, declared by *twenty-six M.D.'s* of high standing in the first class of physicians to be, in their opinion, "*eminently adapted to the purpose intended, and SUPERIOR to any other means within their knowledge, for the reduction and cure of prolapsus uteri,*" be rejected, and not even advertised, because a patent for it was given to an M.D.? I trow not.

And, further, am I to hear of a case where a patient, confined, by proclivencia uteri, to her bed for weeks, perchance for months and years, *begs* for help at the hands of her physician, and *he esteems it more honorable to let her suffer than to advise the means of relief, because such means is patented!*

In my humble opinion, the Sec. 4th of Art. I. in Chap. 2d of our "National Code of Ethics" would convey the meaning of all that ought to be intended, if the word "patent" were omitted.

Gentlemen, I have done. I hope that he of the *New Orleans Medical News* sees this matter in its true light; *humanum est errare*, and I fully believe he was, while writing his ethical stricture, actuated by praiseworthy motives. If, however, he desires more light, I will refer him to the elucidating verdict of a jury composed of

"The fairest of creation,
The last and best of all God's works."

Providence, August 31, 1860.

JOHN A. WADSWORTH, M.D.

CAUSES OF DEATH.—Out of 100 deaths in England and Wales in 1858, the last year for which the causes of death have been examined, 25 were from zymotic diseases, 19 from constitutional diseases, 37 from local diseases, 16 from developmental diseases, and 3 from accidental or other violence. Zymotic diseases were exceedingly fatal, especially scarlatina, which, with its auxiliary diphtheria, caused 30,317 deaths. Smallpox and measles destroyed—the one 6,460 lives, the other 9,271. Syphilitic diseases killed 1,006 persons, above 700 of them infants, who receive it as their only inheritance. Want was recorded as the cause of death in 62 instances; but, observes Dr. Farr, in how many more was it the real, though unavowed, source, or support of fatal disease, it was impossible that register books could reveal. Almost 1,000 children died from want of breast-milk; "alcoholism" destroyed 712 persons, the deaths of 288 being expressly referred to intemperance, and 424 more vaguely to delirium tremens. In the second class—the constitutional—which includes tubercular diseases, it is found that the rate of mortality from phthisis in London and in the Welsh division was nearly the same, though the two districts differ widely in important circumstances; but other pulmonary diseases—bronchitis, pneumonia, asthma, &c.—were more than three

times as fatal in London as in Wales. In the third class—local diseases—there was a clear increase in affections of the brain, the heart, the lungs, and the kidneys; a very remarkable decrease in phlegmon. In the fourth class—developmental diseases—there was an increase in the deaths from old age, caused by the cold of winter. 3,131 mothers died from childbearing—a considerable increase of mortality, supposed to be caused partly by the general unhealthiness of the year, and partly by privations occasioned by the distress resulting from the commercial crisis at the close of 1857. There were six diseases, each of which killed above 25,000 persons in the year—phthisis, 50,442; scarlatina, 30,317; bronchitis, 29,093; atrophy and debility, 26,860; pneumonia, 26,486; convulsions (children), 25,488. Diseases are ranged in the Registrar-General's Reports in 112 classes, or we might say groups. Of the deaths in 1858, half were of persons under seventeen years of age; four out of ten were under five years of age. On the registers for the first quarter of the year being examined, it was found that 7,275 persons died without any medical attendant to certify the cause of their death—six in 100 of the deaths. In Manchester, 181 persons out of 1,755, the number who died in the quarter, had no medical attendance in their last illness; in Yorkshire, as many as 10 persons out of 100, and in the Welsh division at least 12 out of the same number.—*London Lancet*.

THE Sixth Annual Session of the American Dental Convention was opened at Saratoga Springs on the 7th of August, and closed on the 10th, after an extremely interesting and instructive meeting. More than one hundred members were present; the subjects for discussion were well selected, and debated with much earnestness by some of the best minds of the profession.

The National Dental Association held its first meeting July 31st, at Washington, D. C. The meeting was fairly attended, and considerable information elicited from the remarks of the speakers. The Pennsylvania delegation was the largest. No delegation was sent from New York city.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, SEPTEMBER 8th, 1860.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	46	59	105
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	50.4	50.6	101.0
Average corrected to increased population, . . . . .	..	..	110.5
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infan.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
13	27	3	3	1	1	3	6

METEOROLOGY.

From Observations taken at the Cambridge Observatory.

Mean height of Barometer,	30.154	Highest point of Thermometer,	84°
Highest point of Barometer,	30.396	Lowest point of Thermometer,	47°
Lowest point of Barometer,	29.830	General direction of Wind,	Southwest.
Mean Temperature,	62° 5	Whole amt of Rain in the week	0.608 in.

For the week ending Aug. 25th (accidentally omitted in the JOURNAL of that week):—Mean height of barometer, 30.066; highest point, 30.230; lowest, 29.718. Mean of thermometer, 69° 2; highest point, 82°; lowest, 62°. General direction of wind, easterly. Amount of rain, 1.938 inches.

COMMUNICATIONS RECEIVED.—Diseased Supra-renal Capsules.—Local Decomposition in Lead Aqueduct Pipes.

BOOKS.—Proceedings of the Connecticut River Valley Medical Association.

Deaths in Boston for the week ending Saturday noon, September 8, 105. Males, 46—Females, 59.—Accident, 2—disease of the bowels, 1—inflammation of the bowels, 2—disease of the brain, 1—burns, 1—canker, 1—cholera infantum, 27—cholera morbus, 1—consumption, 13—convulsions, 3—croup, 1—debility, 1—diarrhoea, 5—dropsy, 2—dropsy of the brain, 4—dysentery, 3—scarlet fever, 3—typhoid fever, 6—disease of the heart, 1—intemperance, 2—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 3—marasmus, 4—measles, 1—paralysis, 1—premature birth, 2—puerperal disease, 1—scrofula, 1—smallpox, 1—tabes mesenterica, 1—teething, 2—unknown, 5—whooping cough, 1.

Under 5 years, 60—between 5 and 20 years, 8—between 20 and 40 years, 18—between 40 and 60 years, 8—above 60 years, 7. Born in the United States, 80—Ireland, 19—other places, 6.

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LOCAL DECOMPOSITION IN LEAD AQUEDUCT PIPES.

BY JAMES R. NICHOLS.

[Communicated for the Boston Medical and Surgical Journal.]

IN many cities and towns supplied with aqueduct water, physicians not unfrequently meet with certain anomalous affections in patients, which do not readily yield to what seem to be appropriate remedies. Confident that the general influence of the water is harmless, and not suspecting any decomposition resulting from *local* causes, sufficient to change its character, the idea of lead-poisoning does not enter the mind, although the diagnostic symptoms point in that direction. The same class of perplexing, persistent symptoms are often met with in individuals and families using well and cistern water, brought to them in contact with lead, and the character of the disease is not suspected until the plumber is required to repair the pipe made leaky by corrosive action.

The physician is not, however, so liable to overlook or mistake the cause, when lead affections exist in families removed from town or city supplies. The reason is, that competent chemists are commissioned to make careful and extended experiments to ascertain the effect of such water upon lead, and their reports generally assert the non-liability of contamination. It is just that confidence should be reposed in the results of their investigations. The experiments and conclusions, respecting the *general* influence of the waters upon lead, are usually accurate and reliable.

There can be no doubt that the waters of Cochituate Lake, like those of most New England ponds, in their freedom from chlorides and nitrates, and generally holding in solution sufficient carbonic acid to change soluble oxides into insoluble carbonates, are safe to use after passing through lead pipe, under ordinary circumstances. But to form an opinion of their entire safety at all points of delivery, we must inquire if the relationship of chemical forces may not be so affected or changed in one locality, as to change the

character of the water flowing in that direction. We certainly ought to infer that such is the fact, when the presence of lead is detected in the water, and cases of lead disease are found following its use.

Several years ago, the writer called attention to the instances and causes of local decomposition in lead pipes, through a public journal, and since that time the additional instances that have come to his knowledge have convinced him of the importance of the subject.

The late Dr. Treadwell, of Salem, several years since, suspected, from his symptoms, that he was suffering from lead disease, and sent to me, for analysis, samples of water supplied to his dwelling. The amount of the metal present was found to be large; so large, that, for the purpose of obtaining a comparison of results, a portion was sent to a distinguished chemical friend for his examination. The results in no respects differed. The violence of the symptoms in Dr. T.'s case rapidly abated upon his abstaining from the use of the water. A specimen of this aqueduct water, taken from another locality, afforded a trace of lead, while that from other pipes gave no lead reaction with the most delicate tests.

Instances of the kind, that have come under my observation, and those on record, are numerous. It is safe to say that there is no time when there are not individuals in this and other cities and towns suffering from lead disease. It is marvellous how susceptible some individuals are to the influence of this metal in the system. I have been made acquainted with a case where two members of a family of seven were made seriously ill from the use of water containing only, at times, a mere trace of lead—a quantity so infinitesimally small as not to have the least effect upon the health of the others.

In view of the facts, it seems necessary to inquire, what produces this lead impregnation in certain houses or districts, while the general waters of a supply remain unaffected?

In the course of investigations, several interesting facts have been developed, tending to throw light upon this subject. I have noticed in the leaden pipes removed from cess pools, sinks and wells, that the intensity of corrosive action had been in a great measure confined to the sharpest bends and depressions in the pipe, and in some instances other portions remained intact.

I have in my possession a section of supply-pipe, removed from the aqueduct of a neighboring city, in a portion of which corrosive action had proceeded so far as to cause leakage. The part thus acted upon was confined to an acute angle, and there is evidence to show that the plumber, in placing it in position, bent it in the wrong direction, thus creating the necessity for another turn in the opposite. This pipe had doubtless been subjected to two violent turns, which seriously impaired the homogeneity of the

metal. An examination of lead pipe removed from buildings will certainly show that where there has been any perceptible amount of decomposition, it has been confined to the angles and depressions in its course.

There are three causes or agencies which may, perhaps, be sufficient to produce these results:—

1. The disturbance in the crystalline structure of the metal by bending, whereby its electrical condition is changed and voltaic action promoted, giving rise to chemical decomposition.

2. The presence of organic matter, such as fragments of leaves, and impurities pervading all pond waters, and which may be detained in angles and depressions of the pipes. Their presence, undoubtedly, promotes oxydation, and the protoxide of lead will remain in solution, unless sufficient carbonic acid is furnished to change it. It is easy to conceive of conditions where this could not be the case.

3. Corrosions may be produced in lead pipes by the accidental presence of pieces of mortar. Where mortar is present, the lime would assist in oxydizing the metal, and also aid in the solution of the oxide. Considerable portions of fresh mortar are frequently deposited in lead pipes, during the erection of buildings. When the family commence the use of the water, it holds the salts of lead in solution, and its presence may be detected for months. The process of oxydation, which is retarded or prevented altogether by the presence of neutral salts in water, could not be materially interfered with under the conditions considered.

It is obvious, if these observations and conclusions are correct, that much care should be exercised in placing pipes in position, in buildings. In those leading to the culinary department, angles and depressions should be avoided. Violent twists and turns should not be permitted; and during the erection of houses, the open ends of protruding pipes should be carefully closed.

Assuming the general fact that lead pipes, conveying the waters of our New England ponds, become coated and protected by an insoluble lead salt, the question arises, how long before this protection is secured, or, how soon may a family commence the use of water passing through new pipes, with safety? In view of the manifest danger from local disturbances, the most sensible reply would be, *never*. A section of new lead pipe, immersed in Cochituate water one hour, at a temperature of 65° Fahr., gave a decided lead reaction with sulphhydric acid. Removed, and placed in six fresh portions of water, one hour in each, the waters, when tested, gave similar results. The experiment continued during two weeks. Varying the time of immersion in fresh portions of water from one hour to ten, the lead indications continued, although at last feeble. These results are sufficient to show that individuals or families should not commence the use of water

flowing through new pipes, until a considerable time has elapsed, and much water contact secured.

It is important that medical gentlemen should be made fully aware of every source from whence disease may arise, and if there are symptoms in patients indicating lead affections, it would seem desirable that investigations should be instituted to ascertain the facts, although there may be no apparent source through which the salts of lead could be introduced into the system.

12 *Kilby Street, September, 1860.*

THE BED CASE,

OR AN IMAGINARY AFFECTION WHICH CONFINES THE PATIENT IN BED, AND IS PRECEDED OR NOT BY DISEASE.

BY WALTER CHANNING, M.D.

[Concluded from page 142.]

A PROFESSIONAL friend, of the highest reputation among his brethren for his knowledge of disease, and of its treatment, related to me the last case but one, and some others of the affection under consideration, of singular interest. The first of these was in a lady, the mother of two daughters. She gradually sank, and, after a long confinement to bed, and much suffering, she died. One of her daughters sickened, and took to the bed, which at length became her only dwelling place. She died after long suffering, and without manifesting any other symptoms than those which have marked my own narrated cases of the disease. The surviving daughter, not long after, gave indications of the approach of Bed Case, and at its earliest appearance my friend labored to prevent its establishment. There was the same apparently unconquerable disposition to go to bed, and to continue in it, as in the preceding cases. He succeeded in preventing the gratification of this intense longing; and for a short time the young lady seemed to be doing well. Pulmonary consumption, however, gradually showed itself in its severest signs, and was fatal. A question suggested itself to the narrator, how far the prevention of Bed Case was the cause of consumption; and almost regret was expressed at the course which was adopted when it first showed itself. But the result in the two first cases was a demand for prevention of the Bed Case, and the means used were successful. This did not save from death. The form only was changed under which death came.

I was called, three or four years ago, to see a young lady who was represented as having been bed-ridden for some years. I reached the address, and was introduced to the patient, Miss —, who seemed about twenty, and was lying on a low bedstead, as if for the convenience of being tended. Her appearance was of perfect health; with that addition to a natural delicacy of skin

which long seclusion from light and air brings with it. The eyes had that expression of cautious use, which probable morbid sensitiveness of the retina from her darkened room, was likely to produce. The hand and arm were as white as snow, and of extreme softness. The amount of flesh showed excellent appetite, good food, and "good digestion." The manner was very pleasing, and had not in any degree the character which long confinement and much suffering commonly bring with them.

Upon inquiry of my patient, and of her friends, I learned that the uterine and spinal systems had mainly suffered in the early days of the malady, but that the whole nervous and muscular systems had gradually become impaired, and for the most important purposes of the economy were now useless. Miss —— could not move. She was lying on her left side, a position which made the necessary service of attendants easy. She was fed, it being impossible for her to use the hands and arms in the office of self-feeding; and the movements of the jaw took part in the general embarrassment. There was universal soreness, or rather tenderness, from the entire disuse of the body. The spine suffered most. This was represented as exquisitely tender, and all pressure to ascertain its actual state was carefully prevented, or very slight pressure was allowed to be made upon it, or its neighborhood. No deviation in direction was detected.

As to what had been done, I learned that all sorts of methods had been faithfully tried. The patient had been at various institutions, and had been submitted to all sorts of treatment. Especially had she tried apparatus of brass, of wood, of steel, of leather—electricity and galvanism—Mesmerism—the seashore and the interior—the wet and the dry—baths, fumigations, fomentations—hot, cold, lukewarm. Of internal remedies, the name was legion. Note had been taken of every recipe, and books had been read of pathology and of treatment, and faithfully, and understandingly read. Rarely have I met with so full, so minute, and, let me say, so accurate an account of a disease before; and when it is recollected that it went back for many years, and in their experience there was much that might be considered exhausting to the memory, still there was the story, as perfect in its first, as in its latest page.

I saw Miss —— a number of times. I gave to her case, and to its investigation, a willing leisure. There was everything in it to move to any and to all effort which might bring recovery with it, or mere relief. I truly regret that so little was accomplished. Attempts were made again and again to induce her to leave her bed; and chairs, and sofas, and couches, of all sorts, were put in requisition, but without any benefit. At times there was unwillingness to try novel methods, so distressing had all motion become. At others, the attempt was made, but ever with the same general and particular failure. I left her, without

her having experienced any change from my ministr ies. Some time after, I heard of her death.

In my inquiries for cases, many have reached me. In one Bed Case which had lasted many years, the lady succeeded to a large fortune. A change in her whole style of living was at once made. She wanted a carriage—the coach was built, the horses bought, the coachman found. Her orders in all kinds were of course obeyed, for in the schemes of such causation, volition and action are in such immediate proximity, that one includes the other. The intervening processes are merely nascent states, which, in their birth, have reached their perfection. But what was most remarkable in this case, was this: Mrs. ———'s recovery became nascent and complete, too, in her new fortune, and she was at once ready for the new coach, &c. &c. From this moment her hours ran even with the current of every-day time, and she was as early up, and as wide awake, and as happy, as were any of her peers.

Diagnosis.—The disease attempted to be described in the preceding pages is neither a rare, nor a new one. It has not received so distinct a consideration before; at least, the writer has met with no work devoted to it. He has given it a name. This is not remarkable for its euphony, but it expresses just what the writer means it should express. Patients having this disease, have been long said to be “bed-ridden,” “bed-rid,” &c. These terms designate states, conditions, symptoms. They present no distinct disease to the mind, and hence what has incidentally fallen on the subject has been little more than the recital of separate cases, or instances of the disease; never those generalizations which contain, or rather are, theories, or principles; and which present the disease as a pathological being, having all the elements which pertain to any other affection.

The Bed Case may be confounded with many other diseases. Still it has characters of its own; while it wants those which mark others with which it may be confounded. *Hysteria* is essentially paroxysmal in its invasions and nature; leaving the subject free at other times from all its characteristics. *Neuralgia* is permanent, indeed, but it is physical in its elements, and leaves the mind quite alone. And so *rheumatism*, which is so painful, and often keeps its subjects in bed so long; still this last is not its characteristic state or symptom—its proximate cause—itself. I shall never forget an instance in which the Bed Case exactly imitated another disease, *consumptions*. It lasted a great while, the patient dying between ninety and a hundred. The great and pressing symptom of Bed Case was here present in a very striking manner. This was its persistency in one stay, one condition. The patient never changed. She grew older, and when perfectly emaciated, which she was many years before death—dried up, and wrinkled in the extreme—she changed not otherwise. She eat with excellent appetite and good digestion. She drank wine, *as a medicine*,

and was evidently comforted by the remedy. She was very religious, and manifested great resignation in the midst and pressure of suffering, and most touching gratitude for the genuine kindness and respect which followed her all the years of her long life.

The Bed Case may have the helplessness of *palsy*, but it is not paralysis. The limbs are under the power of the will, though they may not always obey it, or the will is withheld from this function by its uses for another, or for others. There is no change of temperature, sensibility, or size, in any part or limb. The functions may proceed in their best order, and still the Bed Case be as perfectly consistent—true to itself—as if accompanied by the occasional disturbances by which it may be attended. The failure of the will in these cases is owing to this. The motives to move are less powerful than those which enjoy rest. As soon as the former become paramount, the bed is forsaken—and this sometimes immediately, as by a miracle—the lame rise up and walk.

Bed Case, it was said, is not *insanity* or *monomania*. The patient reasons perfectly well, from true premises. The whole conduct is consistent with a perfectly healthy mind. The patient is content with her situation. She does not ask or wish to be moved. She has the moral in fair exercise. She is grateful and affectionate. If otherwise, or querulous, or hard to please, she may have taken to bed with her, what belonged to common life, and manifests it under the new circumstances, just as she did under the old. While this is said, in treating of diagnosis, it is conceded that moral power may be, not in the ascendant, or so far direct the patient as in her ordinary health. The mind has become concentrated on a peculiar physical state, and because of the paramount influence of the latter. This is a state of suffering, of suffering greatly exaggerated by motion, or its attempt. At length pain may be felt only on motion. How powerless may healthful moral motives be in such a case! And how powerful, when strong enough to overcome the hitherto imperative rulings of disease!

Our disease is in the mind, just so far forth as the motive to keep the bed is stronger than any present, common, every-day motive can become to leave it. I say "can become," because every one at all acquainted with the disease has witnessed, every day, it may be, the utter failure of any present, ordinary inducement to influence the conduct of the sufferer. But let the moral appear—it may be a new physician—let some extraordinary, unexpected change in condition occur, and suddenly—let the *attention* of the patient, the *direction of consciousness*, be detached, so to speak, from *herself*, and given, heart and soul, under a sufficient cause, to something *out of herself—objective*—and we may find a change produced which we might, under other circumstances, have regarded almost as miraculous. At times all this may be spontaneous. Very remarkable cases of this have been witnessed, which seemed to be

the promptings of the Bed Case's own agency, and a like healthful revolution may be made.*

The state of the mind here referred to, is so unlike what commonly prevails in the disease, or rather is so inconsistent with it, that it has led some to regard the Bed Case as a form of insanity. The mind, as we have seen, may be habitually active, clear, cheerful, studious, contented, so that it is not easy to convince some that any disease whatever can exist. The appetite, digestion, nutrition, may be in perfect harmony with the mental condition, and yet there is the patient, there she has been for years, and there she is likely to remain. Why is it so? We answer, the disease began in some morbid mental or physical occurrence or state. It was gradually yielded to, when proceeding from the first, but more suddenly when from the last, as bodily disease so commonly demands repose, or makes motion, or the erect or even the sitting position difficult or impossible. Absolute recumbency is the rule, which neither gets nor asks an exception for its proof. With a mind in its ordinary and best uses, apparently so sound, how explain the disease—Bed Case? One use of the mind, and which involves its widest reach, and most important relations, is through the WILL, as again and again said. This is powerless in regard to the physical being and state; and so the bed, which was taken, and from whatever cause, comes to be kept with a pertinacity, and argument, which entirely convinces the sufferer that she is right, and makes her suspect the whole outside motive, come whence it may, which desires or insists upon a change of place.

The diagnosis may be aided by further considerations.

The disease does not always disappear with its cause.

The patient remains in bed. The Bed Case continues when its causes have been removed. Some parallels may be found in other diseases or states. A joint has been injured, inflamed, and for cure has been kept without motion. The disease at length is removed, or leaves the part. But the man does not move. He has will, and its functions are perfect. But the joint will not obey. And why not? Because a condition has been induced, and left by disease, which does not permit motion; and as pain accompanies the attempt, it is soon abandoned. Now this state of things may become permanent. The surgeon is called in, and so imitative is the condition of the joint of new, acute disease, that active treatment may again be instituted. At length an *outsider* is called in; one whose only teacher has been experience, and that very roughly gained. He takes the limb in his strong hands, bends it

* *Direction of consciousness* is given above as the equivalent expression for *attention*. For the use of this phrase, see the admirable work of Dr. Holland, recently published, entitled "Chapters on Mental Physiology." This, and the earlier work by the same author, "Medical Notes and Reflections," deserve the study of every physician who would understand and use philosophy in its true relations to medical theory and practice. Is there an American reprint of these important works? We have plenty of books of Practice, so called, in every department of the profession. But of what value is the rule to him who has never reached to its reason? Without the principle, how can he know anything of the case—the occasion for its application?

forcibly backwards and forwards, tells the patient to go out of doors—which he does, and very soon he does the same himself. I have in memory a most striking instance of such a state—such treatment, and such recovery. Bed Case, in its continuance after the removal of its cause, does not proceed so, or present such phenomena. The limbs have not become stiff; the muscles have not become palsied; the circulation has not been disturbed, and the nervous energy is very well distributed. But the will is powerless! There is no will, no true volition. The effort begins with “I can’t,” and is pretty sure to end as it began. Sometimes it uses another, and as short monosyllable, which is very apt to close the colloquy.

The will and the muscles have suffered such long divorcement—they have so entirely lost sight of each other—have so forgotten each other, that it is not easy for a spontaneous reconciliation to take place between them, or for mutual relations to be established. Now let any unusual occasion for motion, for action, arise—let a new and powerful motive be presented, from without—nay, let it arise from within, as we have said and seen, and the will and the muscles come together again, are married, so to speak, without rite.

Another class of diseases, and a very long one, too, with which the Bed Case may be confounded, is that which arises from the dislocations, the diseases, the functional and organic lesions, to which the uterine system is so prone. One of the symptoms of these imitates our disease very exactly. It is the inclination for the bed—the eagerness with which it is sought, and the extreme reluctance with which it is left. The deep pain in the lower part of the back—the pain which accompanies spine sympathy—the reflex function—with uterine disturbances, and which sometimes is so severe as to lead to apprehensions of grave spinal disease—the dragging sensations in the hips—the painful pressure upon the bladder, and demands for micturition—the dysuria—these, and others, becoming ten fold more severe in the erect position, constrain the patient to do what may be done for relief. The bed furnishes the surest means of this relief. It is sought, and the pleasurable result is found. There is this marked distinction to be observed between the two classes of diseases, the Bed Case and the uterine. In the last, aid is eagerly sought for. The physician is confided in, and is obeyed. Means are used. The uterine trouble is removed, and artificial supports compensate, for the time, for the natural. The patient is willing, nay, chooses, to try what she may have gained. She crawls out of the bed—she walks about the chamber—she runs down stairs—she is abroad again. So pleased with such results is she, that without great caution, she will do much more than it is safe for her to do, and relapse, and find it a much harder task to submit to requisite treatment again, than at first. The whole history of a case furnishes the ready

means to distinguish it from the genuine Bed Case. Instances are fresh in my mind, the old and the new. I was consulted in one from a distance. The patient was single, about 20. She could not come to me, and circumstances prevented my visiting her. A description of the case was sent to me, which showed that chronic ovaritis existed, and along with it was morbid menstruation, with uterine dislocation. The treatment was directed accordingly. This young lady recovered perfectly under the treatment. She was taken from her bed. She began to walk. She gradually extended her walks. She drove. She was well. Her first movements were embarrassed and painful. But practice made them easy. For years had this patient been confined to bed. She had cough, dyspepsia, emaciation. The kindest offices were done her. Recovery was not thought of. There is no doubt she would have died without leaving her bed—the victim of Bed Case. When I was consulted, she had no regular medical attendance, and my communications were made through friends. The symptoms were too clear to leave it doubtful what was the disease. How different was all this from the history of the Bed Case.

A second consideration is, *that the cure or removal of Bed Case is often rapid, sometimes instantaneous.*

The truth of our diagnosis is often established in this way. I know of no disease in which this is so strikingly shown. The patient is literally helpless, hopelessly ill one day, and the next is well. There seems to have been no moment between cause and effect, and in some of the more striking cases there does not seem to have been any time between them. Between a volition, and the action of a voluntary muscle or muscles, there is strictly no time. With regard to many muscular movements, we are wholly unconscious. The mind, in these, takes no notice of its own agencies, and they are as sure in themselves, as they are unerring in their results. Think, for a moment, if we were conscious in directing the movements of those muscles on which intonation of the voice depends, and which, when not so directed, become convulsive, spasmodic; and suppose that conscious volition directed the action of the muscles concerned in walking. The labor of life would soon exhaust itself. Now in the Bed Case it may become—it does become, positively necessary that this minute consciousness of volitions should exist. The patient has the severe task in hand of doing this as the condition of loco-motion. Are we surprised that she should so frequently fail if the attempt be made? or that from such failure, she at length abandons the effort altogether? And are we surprised that when cure is reached, it has been, as it were, at a bound, and the patient, with the quickness of lightning, has willed, and has acted?

Of the Treatment.—This must come of the case. It is moral in its cause, wholly moral. The *evidence* of this which has been furnished to me, is as large as has been the *basis of assent* in any of

my professional engagements. My mind has been in many cases wholly made up by this evidence, and the mode of their termination has shown the correctness of the judgment. In the Bed Case of the son of the Persian monarch—a very rare instance, being in a *man*—Hippocrates, with that wisdom which marked the professional life of the Father of Medicine, and which has placed him at its head in all the succeeding time—Hippocrates discovered, at a glance, what was the cause of the malady, and as soon, and as successfully, prescribed for it. When I speak of the moral origin of the Bed Case, in relation to its treatment, it is not to deny or to lose sight of a closely related fact, namely, that what began in the mind will often reach the body—clothe it in its own livery, and so present all the features and the fact, too, of grave functional and organic disease. Nay, I recollect a case which seemed to have had the clearest moral origin, in which, after many years, recovery happened suddenly; the lady found herself lame in one limb, and which lameness remains, so that she walks with a cane to this day. This is the only case in which this result has happened; or which has been reported to me. When the question of *treatment* arises in such cases, one is very strongly reminded of a similar one which occurs in the play:—

“Canst thou not minister to a mind diseased?
Pluck from the memory a rooted sorrow?”

How full of wisdom was the physician's answer:

“In that the patient must minister to himself.”

As the case is so often moral in its cause, it very rarely happens that the physician is called in until some physical trouble is present. The patient may have kept about, lived much as do others around her, until weariness, weakness, or some local disturbance, has become pressing enough to prevent further effort. The mental malady may have been concealed. The physical rarely is. It comes as an addition to that weight, which has become less and less tolerable every day, and at length the bed is sought as the only comfort, or is resorted to by an irresistible necessity. Now, under such circumstances, aid may be asked for, or friends may call for it.

The physician will hardly direct his attention to the mental malady as directly demanding his care. The great moral indication to his mind would be to direct the consciousness of the patient—to transfer interest from the mind to the body—in other words, to divide the responsibility between the body and the mind. There is local disorder, or local disease. It may be of long continuance. It may have become the habit, the mode of life of the individual, or of the organ which is its seat. The physician is called, on its account. Before it had showed itself, the family, the friends, could manage the mental trouble. They may even have concealed it. But at length domestic resources, patience amongst the rest, are exhausted by the demands made upon them by so much suffering, so much morbid sensitiveness. The medical man assumes, and

does what his professional position calls upon him to do, and with a facility, a felicity of manner, which knowledge always brings with it; and in this way gets and secures so much of the confidence of the patient as will bring with it that acquiescence in regard to his directions which can alone make it sure they will be followed. Having to do with local trouble, and this having occupied the attention of the patient for a longer or shorter time, remedies will be directed to this. The interest will gradually be turned to this, and its gradual removal will be the surest precursor of hope in other directions. The mind will at length be reached. Assent, unwilling, it may be, will be given to professional opinion. Benefit has been received, and is acknowledged. What surer step towards compliance with further directions—even to leave the bed, the chamber, the house. All this has occurred again and again, and in the great majority of cases may result in the same way. The remedies for local disease depend upon its seat, its nature, its relations. They are often *external*, and where this use of them is possible, it is believed they will answer a better purpose than when internally used. They produce sensible effects—the blister, the embrocation, the ointment, &c. &c. The patient knows, feels, that something is in hand for her relief. The mind takes part with the remedy; and, than this, nothing tends more surely to cure.

At times, there is no organic difficulty, the whole disease existing in the nerves. Now nothing is more intolerable or more persistent than the pain which accompanies functional lesions of the nerves. The pain may be general—every part of the body, every region, having its own suffering. At other times it is local—in the head, the senses, in the thorax, abdomen, extremities. No matter where it is, and hardly how slight it may be, you may entirely fail to induce such a patient to move, or seriously to enter into any plan of relief. Now it unhappily may be that it is in troubles like these that the whole disease exists. There is no grave organic lesion. Life is not threatened. You may have spasms, convulsions, delirium, trance, and what not, and sympathy in its extreme may declare itself; but death is not in such conditions, nor will it come of them. The physician of any experience in such maladies as these, understands this, and governs himself accordingly. But remedies are demanded from some quarter, and must be used. Suppose much general debility—with pale skin, cold extremities, ringing ears, hurried respiration and circulation, emaciation—attend, or come of the watchfulness and pain, and dyspepsia of the neuralgia. These things are to be especially regarded. For the hysteric symptoms, nothing in my hands has succeeded so well as the treatment—moral, and physical, and medical—recommended by Mr. Robertson, of Manchester.* The hyste-

* The work in which this recommendation will be found, is entitled "Essay and Notes on the Physiology and Diseases of Women and of Midwifery. By John Robertson, formerly Surgeon in Ordinary to the Manchester and Salford Lying-in Hospital, &c. London: 1854," a copy of

rical so completely take the lead in the Bed Case, that it is of great benefit to the patient that means be at hand, and used, which, while they act favorably, at the same time make the least possible demand upon the system generally—remedies which, while they are active, are not destructive. The use of the word *active* here suggests a caution, namely, that such states as are best expressed by the term *hysterics* are always best treated by means which occupy time, are looked to with some confidence, and which, especially, do not waste power. Every symptom is morbid action in such a case, and uses power. Let not the physician, by active medication, diminish what is already so small. For quiet, and to relieve pain, much benefit has been derived from the valerianate of morphia and the valerianate of ammonia, which have been added to the *Materia Medica* here. Very small doses of these only are needed, and the effect is often excellent. I have never known them do harm, which is certainly no small recommendation for new remedies.

Tonics are often indicated. The color of the skin and other symptoms may show that the blood in these cases has undergone changes which require attention. If anæmia be present, the skin, the lips, inside of the mouth, show it. But there is another mark which to me is most distinctive of this state of the blood, and of which I gave an account, in a pamphlet on Anæmia, several years ago. I mean the color of the blood in the veins, at the wrists, or wherever seen. This *color is pink*. The Modena red of venous blood is replaced by the bright color of arterial blood. At least it is much nearer to this color than to that in the veins in health. I have been led to think, from this fact in the history of the circulation in anæmia, that it may have its pathological condition in a lesion of the capillary system; in other words, in that system, whatever it may be; for the question of the connection seems unsettled, by which the veins and arteries intercommunicate. An instance illustrating this idea has already been given, in which the Bed Case, hysteria and anæmia existed together, and in which, when a vein was opened, the blood burst forth as from an artery, with a force that for a time successfully resisted all efforts to stop it. In this case the arterial color of the venous blood was very striking.

I am aware that the blood in anæmia differs, in its physical, living, and chemical characters from healthy blood—that its color

which I had the pleasure and honor to receive from its distinguished author a year or two ago. The only other copy amongst us, within my knowledge, was recently received by my friend, Dr. C. G. Putnam, of this city. This work should be in the hands of every medical man in the country. It is one of the most practically useful books which has appeared for many years; and as a philosophical and scientific work, deserves the highest commendations. It has not, to my knowledge, been printed here. This is to be regretted. The profession deserves it. It should be within the easy reach of every one. It wants neither note nor comment. It tells its own story, and so cleverly and so well, that it asks not for the addition to bulk and cost which editorial labors so generally bring with them, and which labors are so rarely used by the reader. It may be that this work is not known amongst us. If so, and if this communication does no more than to give notice of its existence and secure a republication, it will not have been written wholly in vain.

differs, that it does not coagulate on rest, that the results of analysis differ. Still, from the facts stated, I cannot but think there is reason for the belief that the two bloods, the arterial and the venous, are blended, and the two systems of vessels have relations which, in their degree at least, differ from perfectly healthy conditions. As the blood, in the disease of which I am speaking, and in its congeners, undergoes such important changes—the loss of fibrin, &c.—is it at all surprising that its influence upon the brain and nervous system should be so remarkable as their attendant symptoms authorize us to suppose it to be? The brain depends upon the blood for its functions. If the blood be diseased, how can the brain act healthy? Of the pathological relations of the blood, we have much yet to learn.

Of Tonics, the mineral have the most reputation. Among these are the salts of iron, of manganese, nickel. Quinine is also very useful. Prof. Simpson thinks he has found most benefit from the sulphate of nickel in the same doses in which the iron and manganese are given. Vegetable tonics, especially from their efforts on the stomach in restoring appetite, are often very useful. Diffusible stimuli are often in place, but any important dependence upon them, or daily recurring use, must be carefully avoided, as from the whole condition of the patient, demands for such stimulants may come to be irresistible, and the last state of that woman be worse than the first.

The rapidity, the suddenness with which cure has so often declared itself in Bed Case, has been shown in many instances in this Chapter.* This is easily explained, and should be constantly borne in mind in the treatment of the disease. This manner of disappearance of symptoms, especially keeping the bed, shows that the causes of the disease, whether moral or physical, or both united, have probably been absent some time, or for an uncertain one, and that habit alone has kept the patient in bed. Means, then, must be used, and varied ones, too, and at various intervals, for getting the patient out of bed, for whenever this has been fairly accomplished, no matter how, the chain of habit is broken, and will not be re-united. I have never known such a patient take to bed again. The attempt to get out of bed, to stand, sit, or walk, will be, as we have seen, painful, and to overcome this suffering, or the fear of it, the strongest motives are to be presented, and such have been successful in instances too numerous to be questioned. Let the patient be consulted, of course, but in just such a manner, and with just such circumstance, as will satisfy her that the experiment of motion must be made. Who loves to take physic? and yet it is taken every hour and every day; and in case of the child, volition is not consulted. Violence is not to be used

* It might have been said before, that this communication is from a work which has long been in preparation by the writer, which may be entitled *An Autobiography of a Physician*, as it will be mainly filled with a history of his relations with medicine.

in the Bed Case, and yet the motive for action must be sufficient to overcome the natural opposition which may be made to effort, and to bring the will into harmony with what is attempted, or to be put to the proof. It is the abandonment of these cases by physicians, and friends, which is most to be deplored. The most obstinate ones have been overcome, and by means so gentle, so easily understood, as to prove that the cure is to be regarded as the rule, not the exception; and in place of looking to accident for the remedy, it must be found in the use of the mind, both of physician and patient, just as are the means of treating all other diseases.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, SEPTEMBER 20, 1860.

WHAT THEY THINK OF US ABROAD.—We are glad to give place to the following communication. This country is too often ignored or misrepresented by foreigners, who either think it useless to inform themselves in regard to it, or are satisfied with anything which favors the idea that we are a semi-barbarous people.

Messrs. Editors,—A short time since, an article in a foreign journal, which alluded with contempt to the state of Medical Science in this country, was read before one of our Societies, and occasioned some little discussion upon the relation in which we stand to the profession in the old world. There is no doubt that the majority of our brethren in Europe have but a mean idea of our educational standard. The American student abroad, hears his native country generally spoken of as the home of licensed quackery in medicine, and daring brutality in surgery. In England, national conceit and egotism shut the eyes of every one to foreign merit, and it would be hard to mention a new theory, or a single discovery in science and the arts, that by the most wonderful coincidence had not been anticipated, or at least promulgated *about the same time*, by some Englishman. This impertinence and cool assumption of our cousins across the water is really amusing. You will find numbers of their leading men in medicine, who feel perfectly sure that the whole merit of the discovery of anæsthesia belongs to Simpson, and they not only convince themselves but their neighbors also, for most of the German professors have not the remotest idea that America had anything to do with the matter. I have no doubt that years hence the English nation will either unanimously claim Christopher Columbus as a fellow-countryman, or else furnish documents to prove that John Cabot had made several voyages to this hemisphere before him. On the Continent, a complete Chinese indifference to everything outside of home takes the place of this self-conceit. I never shall forget the look of incredulity with which my statements were received, when, after listening to a lecture from Professor Skoda, of Vienna, in which he stated that thoracentesis was never of any avail in pleurisy, I told him of the grand success that had follow-

ed the operation as practised by Drs. Bowditch and Wyman, of this country, presenting at the same time a report of several cases thus treated. To him they were no more than so many words from Black-foot Indian medicine-men. Another professor made the assertion that the reported frequent occurrence of dumb-bell crystals of oxalate of lime in the urine, in England and America, was to be explained by the fact that the observers had mistaken urate of ammonia for it. Indignant protest, and specimens even of the very deposit mounted by a professor of chemistry in our University, which fortunately I was able to show him, produced no change in his opinion, till the great Oppolzer, on seeing them, pronounced at once that they could be nothing else, and, strange to say, on the following morning found similar forms, till then unseen, in the urine of a patient lying in his wards. It is of very little consequence what opinion is held of us abroad in all things else than science. That should recognize no natural boundaries or nationalities, and we ought to be jealous of our reputation so far as this goes. Facts observed by honorable men should pass and be received unquestioned everywhere; if not, they fail to do all the good they ought, and therefore retard civilization.

What, then, shall we say of an individual who writes such a letter as the following? I translate it as an explanation of the feeling entertained towards us by our transatlantic brethren, for, with such information, how can they judge us otherwise? The letter, in itself, needs but little comment; any person in a strange country might write just such another about the bad company he associated with. It is the source from whence we obtain it that makes it worth notice. It is published in the *Zeitschrift der k. k. Gesellschaft der Aertze zu Wien*, on the 25th of June, the journal of the proceedings of the Imperial Society of Physicians at Vienna, of which Prof. Rokitansky is president, and which is read in every city of Europe. It will be looked upon as a fair representation of the state of medical science among us, or at least, of the country generally, and will influence opinion abroad more than our whole series of medical publications, which seldom get on to the continent. I know nothing of Erie, but grant the truth of these selected cases, the like of which occur even in Vienna, and the conclusion is either that the people of that city, mostly Germans, are so stupid as to prefer quacks to educated men, or else that our correspondent is not fortunate enough to have been received into the circle of the latter, where he might have learned better manners.

J. C. W.

“ERIE, PENN., N. AMERICA, 5 MAY, 1860.

“I write these lines from a farmhouse on the picturesque shore of Lake Erie, 500 miles from New York, and two hours by rail from the Cataract of Niagara. My parents settled here years ago, and on the spot, where the densest primeval forest stood, now grow the German vine, sugar cane, and all sorts of vegetables and flowers, the seeds of which I sent hither from the Schwartzenberg Gardens, in Vienna. My windows command a charming view of the Canadian shore, and at this moment there streams up a splendid Northern Light above the former home of the Cherokees, while behind us a farmer burns down the old forest. Century-old chestnut trees adorn the region, in which the redskin hunted the bear and wolf of yore, and even now strikes down the skunk. Our city now counts 18,000 inhabitants, many iron works, two great free schools, one academy, and two railroads. The streets, as everywhere in America, are perfectly straight, and 60 to 100 feet wide. The houses, built partly of brick, partly of wood and iron, are exceedingly handsome, each one being situated in its own garden. In the

year 1814, when the marine battle was fought off the neighboring coast, a few soldiers bought the place for schnapps and tobacco. A sutler, Charles Reed, purchased the whole, and is now a millionaire.

"Sixteen years ago there came a barber here, Carl Brandes by name. At first he starved, then inoculated an English lady with the smallpox, was sentenced to a fine of 1800 dollars, escaped to California, returned with a heap of gold, paid the trifle, and is now allowed to be the richest and most skilful doctor here, although he has no knowledge of percussion, auscultation, and many other things. As a specimen of his knowledge, he still treats scabies by internal remedies. Besides him, there flourished here, last October, twenty-four other doctors, at which time I arrived here, and began my Vienna practice with much success. The inhabitants of the city are two thirds Germans; the other third consists of Yankees, Indians and Negroes, the latter being mostly fugitives from the Slave States. Day before yesterday I delivered a 14-year-old negro girl, and to-morrow the family, consisting of sixteen souls, departs for Liberia, where each one will receive one hundred acres of land. German physicians make money here very fast, if they understand their "business" and English. Each one has his own medicines, for a knowledge of which I am indebted to Herr Dr. Prof. Schroff, and Herr Apothecary Endlicher at the St. Ulrich, of Vienna. Our midwives here are a combination of ignorance and stupidity; the Yankee doctors, however, surpass everything in trickery and activity, for as soon as one of them has been guilty of anything extraordinarily outrageous, away he runs. More than one hundred patent medicines are puffed in the newspapers, and sold here. A great business is done by the sellers of worm-medicines, which is due to the frequent occurrence of worm-diseases here, where it is no rarity for a child to carry about with itself twenty to twenty-six ascarides lumbricoides half a foot long. For an ounce of santonine I am obliged to pay one dollar. The oculists generally travel about the country, and shortly since an individual by the name of "Charles von Heintye," from Berlin, arrived here with a little electrical apparatus from Buffalo, where he had studied with Prof. Griswold, who five years ago was working upon a railroad. In Buffalo street one may read "R. Stoll—Deutscher Dogter." This man was formerly a shepherd in Meiningen, and has certainly forwarded more into the land of the hereafter, than ever the world-renowned old Anton of the Leichenhaus at Vienna saw dissections. He possesses the seventh book of Moses, looks at the urine, and gives, generally, three bottles of medicine at once. He loves me no better than German orthography; for, by way of a joke, I sent him the urine of my Tom. He examined it, and said, "This man is very sick"; while that very day the good horse had gone with me to Waterford and back, a distance of thirty miles. Since then the "Deutscher Dogter" drinks more whiskey than ever. A month ago I became acquainted with the great Indian Doctor Jakson, who used to be a clerk in a store, and now wears a beard like the Zouaves, whose personal acquaintance I was obliged to make last summer in Italy. At every place he changes his name and dress, like a chameleon. He had given two ounces of the tincture of belladonna to a phthisical patient, and you may well imagine with what symptoms the miserable man came to his end. When I was summoned, and called the "Indian" to account, he drew a revolver, so that I was obliged to call for help to escape, and to put him out of the house. Since then, he is no more seen in our city. In Rochester, a quack by the name of Hang delivered a child with a rope. The head was torn from the body, and Dr. Hang now sits in prison. He confesses, indeed, that he never studied, but says he learned a good deal from books. Last week there came to me a farmer from Fairview. It was a real 'clinical' case of *ozæna syphilitica*. The 'most skilful' doctor here had prescribed for him all sorts of snuff for two years, till finally his nose fell in like a tent in a storm. No one suspected syphilis. A Dr. Leichmann, of M., gave forty-five grains of calomel in pneumonia, a short time since. This communication will perhaps interest Oppolzer and Skoda. The patient, who took this dose three times, recovered, to be sure, but lost all his teeth. Setons and issues I found here upon the most delicate ladies, and every respectable patient wears blisters of all sorts. On the other hand, no leeches are used.

"I impart these facts for the edification of the German medical world, and stand responsible for every word. [In conclusion, one thing more. On the 2d

Sept., 1859, I left the Old World in the ship Autokrat, under Capt. Burwell. Of the 209 passengers, three died. One, a nursling, born in the bay of Biscay, sleeps near the Azores, on the ocean's bed. A girl of 5 years died of croup, and a tailor's apprentice, from Hechingen, of scorbutus. We lowered him down, on the coast of Newfoundland, in the neighborhood of the dumb cable, in the ocean. The physicians had advised a sea-journey, over which he made merry but a few minutes before his death. On the way, I treated six cases of paronychia, and for seasickness gave the following, 'in strictest incognito':—R. Aquæ maris, libr. unam.; syr. simp., unc. unam. S. Every half hour a spoonful to be taken. I can assure you that the remedy benefited those attacked very much. Of 172 persons, 150 recovered in twenty-four hours, in spite of a frightful storm, which fell upon us the day of our departure. With other travellers I tried chloroform, ten drops every hour; but it was of no use. I made my first sea-water experiment upon a little Norman, who was very sick. The cheap remedy did not fail in its evacuant effect, and when he had recovered, I appointed him my apothecary; that is, he drew up the water-bucket full in the storm, and added to it the syrup.]

"Here in Pennsylvania much coal-oil is obtained from the earth. This I use as a frequent application for rheumatism and frost-bites. One thing is very cheap here, viz., the castoreum; two fine pouches cost only two dollars. Sassafras, of all sorts, thrives; likewise the thornapple, which the Indians and Gypsies sow everywhere. We have no hospital, also no beggars. Every one gains as much as he wants, if he only will. The General of the Army here is a butcher, and a German barber is physician-in-chief (oberfeldarzt), with the rank of Major. In 1849, the latter was surgeon's assistant in the volunteer troop at Rastatt."

TWINS OF UNUSUAL SIZE. *Messrs. Editors*,—I send you an account of an obstetrical case, occurring in my practice recently; remarkable in one particular, viz., the size of the infants.

Mrs. N., aged 28, multipara, was taken in labor on Friday night, the 24th inst. I was summoned early on the morning of the 25th. When I arrived, the pains were frequent, and the membranes entire. Thought the size unusual, but conducted the labor in the usual way. About 8, A.M., the membranes broke, and after a few pains the vertex became engaged under the pubic arch, and the child was soon delivered. I soon saw that I had to deal with a case of twins, and that the one born was large. In half an hour, strong pains came on, and I found, on examination, that the second presentation was also cephalic, with the vertex to the left acetabulum. The birth was safely accomplished. The placenta were joined, as it were, in one, with an umbilical cord connecting on either side. The new-born infants appeared so large that I caused them to be weighed. The first born, or the girl, weighed 9 pounds and 1 ounce; the boy weighed 8 1-4 pounds. Their united weights, were, therefore, 17 pounds and 5 ounces. The mother and children did well. I might add, that the woman was rather above the middle size.

I think so large infants, in a compound pregnancy, unusual, and hence report the case. I applied a broad bandage, to prevent anterior, or other obliquity of the uterus, and ordered the usual remedies for after-pains.

Very respectfully submitted,

J. F. WAKEFIELD.

South Malden, Mass., August 30th, 1860.

ARSENIC EATING.—As medical journals have contained so much upon "arsenic eating," we introduce the concluding paragraph of a long article upon the subject, published in the *American Journal of Science and Arts* for September.

"Taken as a whole, the medical evidence which has fallen under our notice, is adverse to the possibility of 'arsenic eating,' only in so far as relates to the large quantities of the poison which, as is affirmed, the human body can accustom itself, by long continued habit, to support with impunity. This last inquiry, however interesting in itself, is one on which very little is known with certainty as yet, and is plainly of quite secondary importance in a scientific point of view to that of the beneficial action of moderate doses of arsenious acid, which would now appear to be proved. From the very general interest which attaches to the subject, it is greatly to be hoped that further researches may soon decide the amount of this tolerance."

A NEW NEEDLE FOR SUTURES.—An advance sheet of the October number of the *Nashville Journal of Medicine and Surgery* has been received, containing an account of a new needle, by Prof. Paul F. Eve, designed chiefly for metallic sutures, with an illustrative cut. We copy a portion of Prof. E.'s description of the instrument:—

"It is mounted on a fixed handle, and is therefore under the control of the operator. It is slightly curved, and has a lancet-like point and shoulders, to facilitate its passage through the soft parts. The novelty of its construction is the *canula* at the curvature through which the ligature, metallic or otherwise, is passed, and this may vary from one half to an inch or two in length. I have had three sizes made, the smallest for silver wire, and the larger for lead. I have just sent an order to Mr. Tiemann for one very delicate, more curved and with a longer handle, for a case of staphylophary now under treatment for operation.

"The needle, armed with the ligature deposited in the *canula*, is made to transfix the flaps gently held together; the wire now pushed through the canulated portion is seized and held by the fingers while the needle itself is withdrawn. The sutures are thus properly placed with great ease and but little pain, and the wound is ready for dressing. My plan is not to cut off the extremities of the ligatures close to the knot, but simply to twist the wire to close the wound, then lay its two extremities down on the integuments, and there secure them by adhesive strips during the healing process. In this way the wound is not liable to be injured by their sharp cut ends, and the same ligature may be repeatedly used.

"Obnoxious to the single objection of size, for I have long advocated small suture needles, knowing well how patients suffer in stitching the flesh; the one here described is certainly quite simple, inexpensive (costing but \$2 a-piece), is of easy, accurate, and of general if not universal applicability. For instance, in vesico-vaginal fistula, the needles now in use are not only brought through, but out of the edges surrounding the opening, a very difficult and painful step in the operation, and then a silk ligature is introduced, to be supplanted by that of silver; whereas by the new needle here proposed, the wire is immediately and readily applied by simply transfixing the soft parts and drawing it from the *canula*. Again, by reversing its action, that is, by first transfixing the flaps, then placing a waxed thread into the opening of the *canula* near the point, in now withdrawing the needle, the ligature is deposited, and by repeating this movement, the continued suture is made. The *cadaver* may thus be rapidly, and with great ease, stitched up after a *post-mortem* examination, by simply thrusting this sharp instrument through the edges of the incisions and arming the *canula* with a small cord at its point.

"It was called forth by the introduction of the metallic suture by Sims, though the waxed thread can be applied by it; and was suggested by Simpson's canulated needle, which, however, I never saw, as well as the difficulties and pain produced in applying the common eye needles, even with holders or fixed handles. It has been tried in the edges made after the removal of a large scirrhus mamma, and in the flaps of an amputated leg. I can with confidence say that it answered an excellent purpose."

LUXATION OF BOTH SHOULDERS DOWNWARDS, FROM MUSCULAR ACTION, WHILE DREAMING.—J. B., aged 43, a German, had dined on sauer kraut and the accompaniments peculiar to that nation. While sleeping on a settee, after the meal, he was attacked with nightmare, and imagining himself falling from a great height, suddenly threw out his arms to seize something above him. The motion wakened him, when he found his shoulders painful and stiff; such is his account. As he thought he had taken cold, he bathed the parts with a domestic liniment, before he sought medical advice. On the sixth day he was admitted into the hospital, presenting, as he carried his arms widely from his body, a very grotesque appearance.

The signs of downward dislocation were well marked, such as, the sub-acromial depression, the head in the axilla, and the inability to place the elbow against the side while the hand was carried to the opposite shoulder. As the muscles were firmly set, he was etherized, when the bones were easily replaced by pulling upon the arm while the heel was in the axilla. He was kept in bed for one

week, when he left the house at his own request. The case is interesting from its rarity.—*Medical and Surgical Reporter*.

NATURAL HISTORY OF STONE IN THE BLADDER.—A fisherman presented, says M. Zennaro, of Chioggia (*Gaz. Med. Ital.*), symptoms of stone in the bladder at the age of fifty-four, and refused all surgical interference. Seven years afterwards a fistulous aperture showed itself in the scrotum, and the man was obliged to keep his bed. During the following fourteen years, five more apertures formed between the scrotum and penis, the patient suffering, in the meanwhile, great torture. When seventy-five years old, he had suddenly a sharp attack of pain, and, during the piercing cries he uttered, a calculus weighing eight ounces escaped from one of the perineal openings. The urine then freely escaped by this aperture; but the man still refused all interference, and put up with this inconvenient mode of micturition.—*London Lancet*.

HUNTER SUBSCRIPTION.—The Hunter Committee of Massachusetts acknowledge the receipt of subscriptions, with letters, from Dr. Bancroft, of Charlestown, and Dr. Blanchard, of Sherborn.

September 12, 1860.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, SEPTEMBER 15th, 1860.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	44	54	98
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	48.2	49.3	97.5
Average corrected to increased population, . . . . .	..	..	108.8
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infan.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
18	22	1	1	0	4	5	4

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.022	Highest point of Thermometer,	72°
Highest point of Barometer,	30.412	Lowest point of Thermometer,	40°
Lowest point of Barometer,	29.514	General direction of Wind,	N. N. W.
Mean Temperature,	55°·8	Whole am't of Rain in the week	5.377 in.

ERRATUM.—In the last number, page 143, line 12, for "the late Dr. Hodges" read *Dr. Hodge*.

COMMUNICATIONS RECEIVED.—On the Poisons found in Alcoholic Spirits.

BOOKS.—Principles and Practice of Modern Surgery. By Robert Cruitt, L.R.C.P.L. New Edition. (From the Publishers.)—Theory and Practice of Midwifery. By Fleetwood Churchill, M.D., M.R.I.A., &c. With additions by D. F. Condie, M.D. New Edition. (From the Publishers.)—An Essay on the Treatment of Phthisis by the Chlorate of Potash. By E. J. Fountain, A.M., M.D., of Davenport, Iowa.

MARRIED.—At Jamaica Plain, 5th inst., Henry W. Williams, M.D., to Miss Elizabeth A. Low.

DIED.—At Fort Moultrie Station, on Sullivan's Island, S. C., of typhoid fever, Surgeon Bernard M. Byrne, of the United States Army Medical Staff. He was a native of Ireland, came to this country at an early age, graduated with distinction at the University of Maryland, and was appointed a Surgeon in the United States Army. In Mexico he was Medical Director in the Army, and in Florida he encountered both cholera and yellow fever, which he treated with great success. He was in the battles of Palo Alto, Resaca de la Palma, Monterey, Saltillo and Buena Vista. He bore Ringgold from the field when he was fatally wounded. Dr. Byrne's name frequently received honorable mention from Generals Taylor, Wool, and other officers to whose division he was attached.—At the Naval Hospital, Chelsea, 28th ult., Surgeon S. R. Addison.

Deaths in Boston for the week ending Saturday noon, September 15th, 98. Males, 44—Females, 54.—Accident, 1—Inflammation of the bowels, 2—disease of the bowels, 2—Inflammation of the brain, 2—disease of the brain, 1—cancer (of the liver), 1—cholera infantum, 22—cholera morbus, 1—consumption, 18—convulsions, 1—croup, 1—debility, 1—diarrhea, 3—dropsy of the brain, 4—dysentery, 5—epilepsy, 1—remittent fever, 1—scarlet fever, 1—typhoid fever, 4—disease of the heart, 2—intemperance, 2—intussusception, 1—Inflammation of the knee, 1—congestion of the lungs, 1—Inflammation of the lungs, 1—œdema of the lungs, 2—marasmus, 3—old age, 2—premature birth, 1—suicide, 1—smallpox, 2—teething, 1—tumor (of hip), 1—unknown, 5.

Under 5 years, 67—between 5 and 20 years, 8—between 20 and 40 years, 14—between 40 and 60 years, 11—above 60 years, 5. Born in the United States, 78—Ireland, 17—other places, 3.

THE

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No. 9.

ON THE POISONS FOUND IN ALCOHOLIC SPIRITS.

By A. A. HAYES, M.D., STATE ASSAYER.

[Communicated for the Boston Medical and Surgical Journal.]

FREQUENTLY within the past few years, the public journals have called attention to the existence of poisonous bodies, especially strychnine, in the spirits produced from grains, and no little excitement has grown out of such announcements.

A somewhat extended series of analytical observations on these spirits, from many sources, has convinced me that no good reason for such a statement could be found, and my conclusion has been supported by the testimony of those who are opposed to the manufacture, but who frankly admit that no case has ever fallen under their notice, at the places of manufacture, which would lead to even an inference, in regard to the adding of any deleterious body to the distilled spirits. The addition of non-volatile bodies to the fermented worts, if made, would not contaminate the spirits distilled from them, and it is probable that the supposition, in relation to the use of strychnine for the purpose of increasing the product of whiskey, arose from the *ruse* of a foreman, who wished to conceal the particular characteristics of his ferments in daily use. In low places where such spirits are retailed, drugs which produce narcotic effects, or temporary frenzy, are doubtless resorted to in special cases, while the infusing of pepper or salt is not a very rare occurrence.

Cases of sudden poisoning by the low-priced, common spirits frequently occur, which are not necessarily referable to poisons of foreign origin. Some of the so-called *fusel oils*, produced in the fermentation of mixed grains, either sound or after they have become injured from exposure, act as powerful poisons, and in some states of depressed action of the human system, fatal effects would doubtless follow from the introduction of such oils into the stomach.

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As a general statement, the spirits produced in this country to serve as beverages, are remarkable for their purity and freedom from any substances which careful rectification can remove. When, through age and suitable exposure, the oils contained in them have passed into ethereal bodies and thus ripened the spirits, they become equal, in soundness and purity, to any products imported from abroad, and far less deleterious than most of the so-called brandies of the present time.

There is, however, present in the newly-distilled, and, in most cases, in the older spirits, a source of danger, which, so far as I can learn, has been overlooked, or possibly attributed to criminal intention, which should be publicly known, and is of especial interest to the medical profession.

Newly-distilled spirits, of the most common kind, often contain *salts of copper, of lead, or tin*, derived from the condensers, in which the vapors are reduced to a fluid form. The quantity of copper salt contained in the bulk usually taken as a draught, is sufficient to produce the minor effects of metallic poisoning; the cumulative character of these poisons may even lead to fatal consequences. With a knowledge of the fact now stated, instead of resting on a supposition of the existence of an organic poison, in the spirits which have caused sickness, the physician may notice the symptoms of metallic poisoning, in persons addicted to the habit of consuming newly-distilled spirits, and interpose his aid in preventing the fatal termination of vicious indulgence.

Since I first demonstrated the fact of the frequent occurrence of these metallic salts in the more recently manufactured spirits, the investigation has taken a wider range, and the results have proved that as all spirits at one time were new, so with few exceptions—arising from peculiar rectifications—most spirits have been, or are, more or less contaminated by metallic compounds. Old, or more matured spirits have generally lost every particle of the salts once held in solution. Changes in the organic solvent have caused the deposition of the metallic compound, accompanied by the organic matter from obvious sources, and in such spirits the metallic oxide is always found—if it has been present—in the dark-colored matter which has been deposited at the bottom of a cask at rest. This dark deposit has the appearance of, has been mistaken for, charcoal, detached from the charred staves of the casks in which the spirits have been stored.

Of this dark deposit every sample has, on examination, afforded abundance of copper, copper and tin, or copper and lead, even when taken from the finer qualities of foreign spirits.

Observations have been made on the nature of this change from a soluble to an insoluble state. Samples of new spirits have been kept in glass vessels until the whole metallic salt has fallen in dark flocks, leaving the clear fluid free from any metallic compound and perfectly pure.

It appears, therefore, that matured spirits lose their poisonous impregnation during the time necessary to adapt them for use as beverages, and that while the clear, transparent fluid contains no metallic impregnation, a turbid though ripened spirit may prove deleterious through its *suspended* metallic compounds.

In order to avoid the poisonous effects of these salts, perfectly well-ripened and clear spirits only should be used in the preparation of medicines, and when ordered as restoratives, no new or turbid alcoholic fluids should be allowed to enter the room of the patient or hospital. As a further elucidation of this subject, the following more strictly chemical remarks are offered.

The origin of these salts is connected with the production of acids, as well as alcohol, in the fermenting vats. When the wort is subjected to heat in the still, acetic, butyric and other acids rise with the vapor of alcohol, and pass into the condenser, now most commonly made of copper, with masses of solder containing lead. At the instant of condensation, these acids exert a power of corrosion on the metals quite unsuspected, and the salts formed dissolve in the spirit. Where condensers of pure tin are used, no copper salt is found, and a little tin salt takes its place.

With the vapor of dilute alcohol some vesicular vapor of the wort is carried forward, and the dextrine which can be found in the spirit; another portion of soluble organic matter is abstracted from the wood of the cask, and this is often tannic acid. In the subsequent chemical changes, these organic compounds unite with the salts, and fall in the form of a sub-granular, dark matter, seen in colorless spirits of all kinds. In detecting the metals held in *solution*, the extract obtained, after evaporating the spirit, must be destroyed, as usual in toxicological testing, and an acid solution of the oxide obtained, or the extract may at once be mixed with carbonate of soda, and the metal reduced by the blowpipe flame. When the deposit is the subject of trial, the metal or metals appear on fluxing with carbonate of soda, in the inner flame produced by the blowpipe, on charcoal.

16 *Boylston St., Boston, Sept. 17th, 1860.*

SUPPOSED CASE OF ASTHENIA ADDISONII—DISEASED SUPRA-RENAL CAPSULES.

BY A. CHAPIN, M.D., OF WINCHESTER.

[Read before the Middlesex East District Medical Society, Aug. 29th, 1860, and communicated for the Boston Medical and Surgical Journal.]

In February last, a man residing in Winchester called on me for professional advice. He was a printer by trade, and was on his way home from Boston, where he worked. On leaving the cars, he walked some forty or fifty rods, to my house, and on entering, threw himself, utterly exhausted, on the nearest seat. His counte-

nance was haggard, and he could with difficulty articulate sufficiently to give an account of himself. He stated that for several months he had been failing in bodily and mental vigor; finding it necessary to select the easiest kinds of work, until he had become unable to do any thing—utterly used up; as I then saw him. His appetite was gone; his system emaciated; his sleep disturbed; his skin sallow; his eyes glaring; his countenance, as before remarked, haggard. He had no pain, but much tenderness on motion or pressure, in the region of the kidneys. His pulse was 60 and feeble.

In the March following, his symptoms had all increased in intensity, and in addition, his forehead had become of a dark-brown color, a very distinct white line of demarcation existing along the edge of the hair. There was much pain in the lumbar region when he turned in bed or exerted himself in any way. His sleep was disturbed by muttering, and unpleasant dreams; his mind was at times weak and fatuous, and he seemed to be dreaming when awake. His face and feet had become cedematous; his prostration still greater, and he had occasional vomiting and diarrhœa. His *urine* had all along presented a normal aspect, and when examined by Dr. E. Cutter, at my request, was found of rather light specific gravity, and to contain a slight excess of uric acid. During the month, Dr. B. Cutter and Dr. Ingalls saw him with me; and I believe both concurred in the view that it was a case of *organic lesion* of the *supra-renal capsules*.

The treatment adopted was entirely of a sustaining nature—vegetables, tonics and chalybeates, alcoholic stimulants, and a nutritious diet; also riding when the weather favored. He bears opiates well, to quiet restlessness at night, and to check attacks of diarrhœa.

Contrary to all expectation, he has gradually improved for several months past—is more animated in his countenance, has a good appetite, takes long rides without much fatigue, walks a mile, goes to church, performs light work, sleeps well, and has less tenderness in the loins. He has, however, the same dark-brown or bronzed countenance still, some general sallowness of the skin, and finds his strength soon give way under any severe muscular effort.

The disease is rare, and has before occurred in but two instances under my observation—one, some eighteen years ago, was presented by a man who had what was then termed black jaundice, but which I have now reason to believe was disease of the supra-renal capsules, from the correspondence of the general symptoms with those usually seen. The other, more recent, existed along with Bright's disease, where there was complete disorganization of the left kidney, by fatty degeneration, involving the supra-renal capsule of the same side.

RESEARCHES UPON THE ERECTILE ORGANS OF THE FEMALE,
AND UPON THE TUBO-OVARIAN MUSCULAR APPARATUS, IN
THEIR RELATIONS TO OVULATION AND MENSTRUATION.

BY DR. CHARLES ROUGET, ADJUNCT PROFESSOR IN THE FACULTY OF
MEDICINE AT PARIS.

[Translated for the Bos. Med. and Surg. Journal, by WM. READ, M.D.—Continued from p. 483, Vol. LXII.]

OBSERVERS of established reputation have gone so far even as to throw doubts upon the muscular nature of the parietes of the tube, or at least their continuity with the muscular system of the uterus. With much more justice, is there nowhere a doubt of contractile fibres in the appendages of the large ligament, which are immediately connected with the tube and the ovary (edge of the tube, edge of the ovary), and has it never been suspected that we could find in the human female something analogous to the superior round ligament or lumbar, as developed in the majority of the mammalia? Nevertheless, in this particular, no more than in the rest of his organization, man does not depart from the type common to the nearest related species; the muscular systems which we have pointed out in the other mammiferæ exist in the woman, and have the same connections and the same use.

But those anatomists who have directed their studies to human anatomy, have concentrated all their attention upon the structure of the muscular parietes proper, of the uterus, which, in the human female, acquire an extraordinary development. That ingenious anatomist, Deville, who, first of all, gave a good description of the muscular coat of the uterus, and pointed out the prolongations which it sends into the large ligaments, did not think there was either interest or utility in investigating the connections and the insertions of these processes.

As to comparative anatomists, who have made out muscular fibres very plainly, in the large ligaments of the mammiferæ, particularly at the end of gestation (see Pappenheim, in Muller's Archiv., 1840, p. 346), they have only studied the relations of these fibres with those of the uterus itself, overlooking the connections, in other respects very important in a physiological point of view, with the essential organs of generation, the ovary and the first part of the oviduct (the Fallopian tube), so particularly pointed out under the name of appendages to the uterus.

Besides, it is necessary to mention that our ignorance relative to the histological character of contractile tissues, has been the chief cause by which observers have been deceived. I do not speak of the period when we doubted the muscular nature of the true tissue of the uterus in a state of vacuity, but at the present time even, when the microscopic character of the muscular elements seems so clearly established, what anatomist is there, who, without being directed by reflection, or by scientific induction, would dream of finding muscular fibres in the peritoneal mem-

branes, thin, diaphanous, and homogeneous, the true type, apparently, of the coats of serous, conjunctival tissue? And yet comparative anatomy demonstrates, in the plainest manner, that such membranes, more transparent and less resistant than the arachnoid, can not only contain muscular tissue in their substance, but often even are entirely made up of it.

In almost all young vertebrated animals, or those of a small size, to whatever species they belong, a microscopic examination only, allows us to recognize the existence and arrangement of the muscular apparatus which I have pointed out, and in nearly every instance the contractile fibres are very easily distinguished by a series of club-like nuclei, very numerous and close together, and by the action of nitric acid of the strength of 1-100, which, leaving untouched the vessels, the nerves, and the contractile fibres, dissolves the fibrous conjunctival tissue which often cover the last.

In this way, in the full-grown domestic fowl, we can see plainly, by the naked eye, the muscular fibres which radiate themselves in the broad ligament; but in the female pigeon, the young especially, the oviduct is embraced by a *serous* membrane (see Martin Saint-Ange, *Appareils reproducteurs des vertebres*, in *Mem. des avant étrangers*, vol. xiv., 1856) exceedingly thin and diaphanous, and destitute of every kind of striæ or visible fibres. Now place this peritoneal coat under the microscope, and examine with a power of from 250 to 300 diameters, and you will find it to be entirely made up of the same kind of muscular fibres as the broad ligament of the fowl. I will mention also the peritoneal membranes attached to the internal organs of generation of reptiles and the majority of the mammalia; the muscular fibres are very plainly distinguished in them; the study of their arrangement and their connections only presents any difficulty.

In the human female it is altogether different, and an observer, a trained one even, would probably overlook the presence of muscular fibres in the *peritoneal* ligaments of the organs of generation, if he was not prevented by certain important peculiarities. The muscular tissue does not there form a continuous membrane, but a sort of web, with large intermingled meshes of muscular network and nerves, the whole covered and disguised by the fibres of fibrous conjunctival tissue. These contractile fibres are so bound down by this last tissue that it is impossible to isolate them in their fresh state by mechanical force, without altering their texture, to a degree that their elements become entirely irre recognizable, and are necessarily confounded with the filaments of the fibroid conjunctival tissue. There is actually no need of looking to find these fibro-cellules, the pretended characteristics of muscular fibres;* it is difficult enough already to fabricate them in the

* The result of my researches is that these fibro-cellules are an artificial production, arising from alterations and ruptures of the true elements of riband-like muscles, which are nothing more than tubes continued throughout the entire length of a fibre, and made up on an anhistous envelope with

true fibres of the uterus; it would become altogether impossible in the fibres of the *peritoneal* ligaments.

It is to these very fibres that the investigation should be directed. For this purpose it is necessary to take a small scrap taken from the very surface of the membranous ligaments (between the two layers which form this source we find but little except cellular tissue, vessels and nerves), then moisten the preparation with a few drops of weak acetic acid, or what is better, water acidulated with a one-hundredth part of nitric acid. The conjunctival tissue, transformed into homogeneous transparent jelly, permits us to see there, independent of vessels and nerves, a system of fibres from 0^{mm} , 02 to 0^{mm} , 05 in diameter, anastomosing, forming plexuses and intersecting each other in two principal directions. In the infant and the woman who has never had children, it is not easy to determine the nature of these muscular fibres. We there have them evidently confounded, as in very many other points of the economy, with fibres of conjunctival tissue or fine elastic fibres. Their aspect, in reality, is very similar, especially when they have been treated with weak acetic acid, to that which the fibres of tendons or aponeuroses present under the same conditions. It appears homogeneous, indistinctly striated longitudinally, and traversed in all directions by indistinct wavy filaments; the nuclei, elongated and much more separated from each other than in the muscular tissue of the intestine or the bladder, resemble the corpuscles of conjunctival tissue (nuclei of Henle, plasmatic cellules of Virchow). But we notice, in the first place, that after remaining many days in very much diluted nitric acid, these fibres detach themselves with perfect distinctness, whilst all the conjunctival fibrous tissue has disappeared. Moreover, in examining with care, with a power of from 400 to 500 diameters, in a good light, we make out that the striation of the fibres is due to certain fibres or parallel tubes of 0^{mm} , 004 to 5 in diameter, in which there shows, very clearly, here and there, the granular contents characteristic of muscular elements. The obscure wavy filaments are, in the majority of instances, nothing more than folds of the enveloping membrane of the tubes, altered by the preparation and the action of the reagents. By adding to the preparation a few drops of nitric acid, one-fifth strength, and heating to the boiling point, the conjunctival tissue is entirely destroyed, and the nature of the muscular fibres, which are colored deep yellow, becomes more and more evident.

We add, finally, that during pregnancy, and for some time afterwards, there can be no possible doubt of the nature of this system of fibres; the granulations of the contractile substance have be-

a granular filling, in the midst of which are often, but not *always*, disseminated at variable distances, nuclei elongated into a club-like form, perfectly distinguishable wherever they exist. (See *Comptes Rendus de l'Acad. des Sciences*, December, 1856.) These investigations, extended through all the contractile tissues of the animal series, will be published in the next numbers of the *Journal of Physiology*.

come more distinct; we notice, also, an increase in diameter of the fibres (on an average to double), and a considerable augmentation of the number of the nuclei, at that time as near to each other as they are in the intestine; but this twofold change results from one and the same cause, because the new elements have developed themselves in the midst of the old, in the very substance of the fibres; their number and arrangement, however, are not diversified.

After having demonstrated that these fibres, which form the frame-work of the so-called *peritoneal* ligaments, have the same nature in the human female and in the mammalia, it remains to demonstrate that they have the same arrangements, the same connections, and that in the internal muscular generative apparatus of the woman we find the same type as in ruminants, rodents, &c., the type of ovario-tubal membranes in reptiles, in birds and in ornithodelph mammalia, modified by a double intersection.

For the study of the muscular system of the organs of generation in the woman, we usually choose the period of pregnancy. It seems to me that the great development which then takes place ought to render the examination more certain. But if it is true that at that time, everywhere, in the great ligaments as well as in the uterus itself, the essential characteristics of muscular tissue may be more easy to demonstrate, it is not equally so in regard to the general arrangement of the whole. The enormous enlargement of the body of the uterus, the progressive obliteration of the great ligaments, which to a great extent it encroaches upon, the distortions, the displacements which are simultaneously produced, bring about this result, that the organs of generation in the human female, at the epoch of pregnancy, depart more than ever from the normal type, from the type common to all mammalia.

At the moment of birth, on the contrary, and even up to the time of puberty, the organs retain the marks of the primitive forms; we still distinguish the cornua of the uterus under the thin layer of muscular tissue which covers and tends to make them indistinct; the true tissue of the body of the uterus is little developed, the connections of the superficial layers with the membranes near by are more marked; in a word, these membranes themselves, thin, transparent, and free from those filaments of adipose tissue, which, at a later period, encroach upon them, present themselves to the observer under the most favorable conditions.

Wherever it seems to make its appearance during pregnancy, there muscular tissue existed at birth, and when one is familiar with the characters of its constituent elements, a study of the general arrangement presents but few difficulties.*

* By means of low powers (from 6 to 15 diameters), and even by the naked eye, at some points, we can observe the course, and the direction, of the contractile fibres, which the order and regularity of their arrangement distinguish from the confused felting of the conjunctival tissue.

The most convenient method consists in spreading on a glass plate the whole of the organs of

It is there easy to make out that, just as in the other mammalia, the uterus and its appendages are included within the thickness of a large muscular membrane, of which the assumed *peritoneal* ligaments are nothing but dependencies. In the arrangement of the fibres of this membrane, scarcely modified by the slight differences in the form of the uterus, and in the direction of the tube, we recognize the order I have set forth by taking for a type the organs of generation of a she-goat.

The fibres belonging to the system of the round *pubic* ligament spread themselves out in a fan-like form through the whole height of the uterus, and intersect with those of the opposite side; a certain amount of traction, made at the pubic extremity, brings into view their direction. In the utero-sacral ligaments, and the posterior layer of the great ligament, we find insertions on the sacrum and in the sacro-iliac region.

The fibres belonging to the system of the ovarian ligament (*mesoarium*), pass principally to the posterior face of the uterus. We can easily trace them from where they begin to decussate on the median line. Descending at the superior portion, and ascending at the inferior, they converge towards the rounded cord which we designate by the name of ligament of the ovary: but very numerous at this point only, they occupy the whole extent of the muscular membrane (*serous* of authors), to which the ovary is attached. They do not terminate abruptly at the internal extremity of the ovary. These fibres, with numerous and elongated nuclei which interlace themselves in the stroma of the gland, and enclose the Graafian vesicles in the meshes of their reticulated structure, are probably nothing else than the continuation of those of the ovarian ligament (*mesoarium*), just as they are, without question, in the ovary of the scaly reptiles and birds. Besides, we can prove, in the most direct manner, that the majority of the fibres of the pretended ligament, just at the corpus spongiosum, run along the inferior border of the gland, and, arrived at the outer extremity, unite in the formation of the muscular cord (*serous ligament* of authors), which connects the fimbriated extremity with the ovary. And again, from the superior border of the utero-ovarian ligament, fibres detach themselves which interlace in the muscular web of the tip of the tube, and go on to terminate themselves on this canal and in the fimbriated extremity.

The study of the fibres which make up the system of insertions for the muscular membrane in the lumbar region, and which are represented in the mammalia by the *anterior and superior round ligament*, presents much more difficulty.

generation of a little girl (uterus, tube, ovary, great ligaments, round ligaments, and the cord of the ovarian vessels, with the peritoneum which covers them.) We first examine the whole with a lens, in a good direct light, then by transparency, with the assistance of magnifiers of from 20 to 200 diameters, after having wet the preparation with diluted nitric acid of the strength of 1-100, in order to obliterate the fibres of conjunctival tissue.

We there look in vain for a muscular cord similar to that which we so easily perceive in animals, elevating the thin and transparent peritoneum, and running along parallel to the ovarian vessels. Nothing has ever been described, nor, perchance, even ever found analogous to it in the human female. The only difference which in reality there is, however, is that in this case the muscular fibres, instead of being condensed into bands, are spread out into a membrane; and instead of going separately for the length of the vascular cord, they cross it, envelope it, mount with it towards the lumbar region, and gradually become lost in the *fascia propria*, by means of which they are fixed to the posterior parietes of the trunk.

The existence of these fascia being determined, if we now seek to follow their course and their connections, we see that a certain number of them radiate upon the posterior layer of the great ligament, and go in front towards the uterus; that others, raising the peritoneum in the form of a fold, are reflected off towards the top of the ovary and fix themselves to the fimbriated extremity, whilst the greater number, accompanying the vessels as far as the umbilicus of the ovary, a part seem to penetrate the parenchyma of the gland, and a part, crossing the erectile bulb and continuing their way to the extremity of the tube, appear to lose themselves in the contractile envelope of this canal. In the last part of their course, these fibres intersect with those which come from the ligament of the ovary.

[To be continued.]

PASSAGE OF A LARGE STONE THROUGH THE URETHRA OF A BOY TWO YEARS OLD.

REPORTED BY W. M. TURNER, M.D., OF PETERSBURG, VA.

ON the night of the 29th ult., I was sent for to see a boy who, the woman told me, was suffering from retention of urine. The case was under the treatment of Dr. Weldon Claiborne, of this city, and the woman who called me brought a request from Dr. C. to carry a catheter with me and endeavor to get away the urine; he, the Doctor, being compelled to go into the country before returning to his office, and he had, unfortunately, no catheter with him. I went, and found for my patient a handsome little boy (colored), about 27 months old. He was lying on his back, moaning most piteously—his countenance betraying acute suffering. The pulse was both frequent and quick, ranging in beats to the minute from 125 to 135. Before proceeding to explore the region of the bladder, I was led to examine the chest by the circumstance of accidentally placing my hand over the right lung, and feeling a decided vibratory thrill. Applying my ear for auscultating purposes, I detected a pneumonia in the upper lobes of both lungs,

and in the *second* stage; as bronchial respiration and bronchophony were well marked, as well as was dullness on percussion. Upon inquiry, I learned that the child had been sick a month previous, with measles, and, having taken cold when recovering, had been complaining more or less ever since that time.

The bladder, to which I then turned my attention, was enormously distended, protruding and hanging over the pubic arch, somewhat resembling, in miniature, the "*pendulous-belly*" of pregnant women. The epidermis of the abdomen, over the bladder, was quite red and shining, and I was indeed fearful of an artificial opening. The penis was much enlarged, and apparently infiltrated with urine. This, however, was not the case, as subsequent examination proved. To add to the difficulties of the case, there was present a congenital phymosis—rendered ten times more rigid in its contraction by the swollen state of the penis. It was a difficult task, which I then set to work to accomplish—that of drawing off the urine of a boy 27 months old, under circumstances of such pain to the little patient, and of such disadvantage to myself. The swollen and phymosed condition of the penis, and the great irritability of the child, rendered it almost impossible even to make an attempt with the catheter. At the slightest touch the boy would shriek and scream, until I actually thought the strained bladder would rupture before the prolonged muscular contraction would relax. Finally, after much patience and considerable manoeuvring, my only assistant being an old lady, who managed to hold the child's hands, I succeeded in passing a small gum catheter through the hard, pursed-up, phymosed ring, and, as fortune would have it, into the urethra. This *feat* I was compelled to perform several times, for the frantic efforts of the child dislodged the catheter, and my labor was thrown away. However, I placed my knee upon the lower extremities of the child, and in this position succeeded in passing the instrument once more into the urethra. Moving it slowly and cautiously downward, I soon had the satisfaction of reaching the bladder, which I knew to be the case by the sudden gush of the pent-up urine through the catheter. At the neck of the bladder, I noticed a slight *gritty* feel as the catheter glided along; it was transient, however, and I thought nothing of it, attributing it to the ring of a cartilaginous stricture, which I had no doubt existed. The boy was instantly relieved, and fell asleep while the urine—an enormous quantity—was flowing. I prescribed nothing for the patient that night, except cold cloths around the penis. The next morning, the first of August, I saw the boy with Dr. Claiborne; we found the patient much refreshed and considerably improved by a good night's rest. The belly, over the region of the bladder, had lost the prominent *bullety* appearance of the previous evening, and appeared more natural, yet it was still very tender. The penis possessed yet its infiltrated look, and resembled much a transparent gelatinous sub-

stance—differing only in a *solid appearance*. We found that the boy had already passed his urine once, but in a very unsatisfactory manner, screaming at the top of his voice when the urine reached the urethral canal, and refusing most positively to make further effort. The result was, when we arrived, he was again unable to urinate. Once more my little gum catheter was called into requisition, and our united efforts had the desired effect of bringing away the urine. As I had a case of instruments with me, Dr. C. advised operation for phymosis; suggesting that, perhaps, the rigidity with which it fastened around the glans penis prevented micturition. We divided the pressure with a bistoury and director. The operation was over in a few minutes. After splitting the prepuce, we discovered that the retention of the urine could not have been due to the pressure made over the mouth of the urethra by the phymosis. When I passed the catheter in to empty the bladder, I detected, very plainly, the same *gritty* feel which I had remarked the evening previous. Dr. Claiborne was equally sensible of the peculiar sensation. The touch was decisive; there could be no mistaking the fact of the presence of a foreign body. Dr. Claiborne immediately pronounced the case to be stone. In withdrawing the catheter, which I had used as a sound, I distinctly felt an opposing substance. Dr. C. at this moment remarked, that he distinctly felt, between his thumb and forefinger, a round or irregularly round tubercle in the urethra. After several introductions of the catheter, I finally succeeded in hooking the stone in the fenestra of the instrument, and, with a sudden motion, drew it forward an inch toward the external orifice of the *meatus urinarius*. Here we experienced much difficulty in our work; we dared not split the urethra; and yet it was very difficult to obtain a hold on the stone, which showed a constant tendency to retrocede. Finally, after much patience and manipulation, we obtained a fastening on the stone with a pair of dressing forceps, and extracted it. The boy came near swooning, but soon revived. The following are the dimensions of the stone: Length five eighths, and circumference three-quarters of an inch; weight, nearly forty-two grains; shape, semi-conoidal and semi-cylindrical—the presenting end corresponding to the apex of the cone. An analysis of the stone proved it to be oxalate of lime.

A further examination, using the catheter as a sound, revealed, as we had already suspected, the presence of another calculus in the bladder, and we came to the conclusion that the lithogenesis was hereditary. On inquiry, however, I learned nothing which would warrant the supposition. The boy has not suffered, especially since the time of the passage of the stone. He is now running about, and seems to be lively enough. That he will be troubled again with calculus, there can be no reasonable doubt; how soon first, I cannot say.

The noticeable feature in this case is, that a *stone of such a size*

did pass through the urethra of a child two years of age.—*Maryland and Virginia Medical Journal.*

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

JULY 23d.—*Perkins's Tractors*.—Dr. JACKSON exhibited a pair of "Perkins's Tractors," that were so famous, about the commencement of the present century, for the cure of almost every sort of disease, and that imposed upon the credulity of all classes for several years, in Europe as well as in this country. They were sent to Dr. J. for the Museum of the Medical College, by Dr. Jonathan Ware, of Milton, and may be compared, in form, to a stilet about three inches in length, that has been cut longitudinally into two equal parts; one is of brass and the other of steel; one surface is convex and the other flat; one extremity is large and rounded, and from this it tapers off to a sharp point, the greatest width upon the flat surface being one-fourth of an inch. With the tractors, Dr. W. sent a short biographical sketch of Dr. Perkins, with some account of his discovery, the details of which may be found in *Thacher's Medical Biography*, and in the *Encyclopædia Americana*.

AUG. 13th.—*Cancerous Disease of the Bladder*.—Dr. JACKSON showed the specimen, which he had received from Dr. J. H. Blake, of North Auburn, Me. It had been in weak spirit, but the appearances, excepting the color, were well preserved. The cavity of the organ was smaller than natural; parietes much thickened and indurated, and had a scirrhus look; extensive ulceration of the inner surface, ill-defined towards the fundus, but separated by a high margin from the adjacent mucous membrane towards the neck of the bladder. This last membrane was irregular upon its surface, and had what would be generally called a "thickened, fungoid look" and feel. The prostate gland was healthy. The bladder contained, according to Dr. B.'s report, about an ounce of reddish-gray, slimy, grumous liquid; and a small quantity of the same was found in the ureters and in the kidneys, having been forced up from the bladder. The ureters and pelves of the kidneys were dilated; but otherwise, the organs were healthy.

The following is essentially the history of the case, as it was sent by Dr. B. The patient was a farmer, 68 years of age, of good constitution and habits, but always very anxious about himself when he was not perfectly well, and always looking forwards to a suffering old age and painful death. Since October, 1858, he has had occasional hæmaturia, and of late this had been constant. At first, the blood was generally diffused in the urine, but sometimes it came away in clots which were often large, and passed with difficulty. During the last three months he passed a large quantity of solid substance, looking like partially organized fibrin or pieces of placenta that had been retained for a day or two. These coagula never looked as if they came through the ureters; and there never appeared to be any renal difficulty.

When his disease commenced, he became desponding, and manifested the greatest distress of mind, although he said that he had no pain,

and did not suffer from his disease. There was no tenderness, nor distress that amounted to pain in the region of the bladder, except during the passage of the coagula; and during the whole course of his disease there was never even a troublesome tenderness until lately; during the last few weeks, however, he suffered considerable pain. He also had command of his urine until lately. About three months ago he took to his bed, although he said that he felt able to be about; his appetite, which had been precarious for some time, soon failed entirely; he took scarcely any nourishment, and he died on the 20th of July, apparently from inanition.

Dr. B. remarks, in his note, upon the tendency of his patient to run after all sorts of quackery, upon the comparatively small amount of local suffering, and upon the influence that his desponding state of mind must have had upon the disease.

AUG 27th.—*Tuphlo-enteritis*.—Dr. JACKSON showed a foreign body from the appendix cæci, that he had received from Dr. E. B. Hammond, of Nashua, N. H. It was about as large as the end of the finger, but of an irregular form; surface smooth, compact, and of a brownish color. A smaller one that was also removed, has been analyzed by Dr. Bacon, and found to consist of fecal matter, mixed with vegetable fibre, four-fifths each, and phosphate of lime, one-fifth.

The following history of the case has been sent by Dr. H. A healthy young man, aged 21 years, had had for two days more or less pain in the region of the pylorus, vomiting, and constipation. A cathartic operated with difficulty, but had the effect of allaying the pain and vomiting, which, however, returned in about twelve hours, lower down in the abdomen, and upon the right side, and became more severe, with tympanites and tenderness, until death; the disease having lasted one week.

On dissection, extensive peritonitis was found, with an abundant effusion; the intestines being agglutinated to each other and to the abdominal parietes. The appendix cæci contained the two foreign bodies, and near them the parietes had sloughed.

SEPT. 10th.—*Mitral Disease; Pulmonary Apoplexy; Disease of the Kidneys and Spleen*. Dr. MINOT showed the specimens and reported the case.

Ellen Gallagher, 14 years old, entered the Mass. Gen. Hospital, July 11th. She was a pale, emaciated child, with a cough, and dyspnoea on making any exertion. She said she had been well until about a year ago, when she took cold, from exposure. In the course of the last winter she was confined to her bed by pain, but she could not tell what was the nature of her complaint; she afterwards became an out-patient, at the Dispensary, where her disease was called "rheumatism." The catamenia appeared, for the first and only time, a year ago. At her entrance, she coughed much, particularly at night, and expectorated a small quantity of frothy mucus, often streaked with blood; there was some dulness in the left back, but no râles were heard anywhere. There was a loud systolic murmur, at the apex of the heart, which was heard all over the back, even at the right side.

The cough was much relieved by expectorant and sedative medicines, of which naphtha seemed to be of essential service. On the 15th of July, a crepitant râle was heard below the inner extremities of both clavicles, the expectoration increased somewhat, and the patient complained of much pain in the shoulders, particularly the left.

The râle, taken in connection with the expectoration, and with the fact that the girl's mother had died of phthisis, led Dr. M. at first to suppose that there was tuberculous infiltration at the apices of the lungs, but the subsequent extension of the râle over the whole back, made it evident that the sound proceeded from œdema. There was also dulness on percussion in the lower part of both backs. On the 26th, she suffered severely from vomiting and purging, caused by eating some apple-pie, surreptitiously brought to her by some friend. From this time all her symptoms were aggravated. About the middle of August, she began to have œdema of the face and legs, increased dyspnœa, and palpitation, and the urine was loaded with albumen. The symptoms increased in severity, the dyspnœa and palpitation became extreme, she expectorated, freely, a dark-chocolate colored mucus, with some pure blood, and was released from her sufferings by death, September 7th.

The autopsy was made by Dr. ELLIS, who reports that there were more than two pints of bloody serum in the left pleural cavity, the pulmonary surface of which was covered with a recent false membrane, and about half a pint of clear fluid in the right. In the upper and lower lobes of the right lung were firm, dark-red portions, where blood had been effused. The same appearances, but more extensive, were found in the anterior and posterior parts of the left lung; a small portion of the lower part of this lung had an older appearance than the rest, being of a dull-red color, and surrounded by a yellow line, which had a purulent look. There were no tubercles. The heart weighed $8\frac{1}{2}$ ounces. In the right ventricle were a number of old, yellowish, rounded coagula, the largest being not more than half an inch in diameter. This coagulum contained a cavity filled with a puriform fluid, which was composed of minute globules and granules, like those usually found in softened fibrin. Attached to the edge of the mitral valve was a large, irregular, but smooth, firm, cretaceous mass, perhaps a third or half an inch in diameter. Several of the chordæ tendineæ were ruptured, and others were much thickened. Much fibrin was deposited upon the valve, and the surface of the auricle. The aortic valves were perhaps a little thickened. The spleen weighed $11\frac{1}{2}$ ounces. At each extremity was an irregular, yellowish-white mass, from one to two inches in diameter. There were several similar, but smaller formations elsewhere. Masses of this same character were found in the right kidney, just beneath the surface, the largest measuring an inch superficially, and a quarter of an inch in thickness. One reddish point was formed in the left ovary; both were, however, quite smooth.

Dr. M. remarked that the patient's death was undoubtedly hastened by the vomiting and purging caused by eating indigestible food, and that the appearances presented by the spleen and kidney, perhaps the result of extravasated blood, were such as had been frequently pointed out by Dr. JACKSON in cases of obstructed circulation, arising from disease of the heart. The condition of the ovary might be supposed to be the result of the first and only appearance of the catamenia. The pain in the left shoulder was doubtless owing to the inflammation of the pleura.

SEPT. 10th — *Wound of the Brachial Artery.*—Dr. CABOT reported the case. A man, 36 years old, entered the Massachusetts General Hospital, Sept. 4th, who had been injured three and a half weeks previ-

ously, while at work holding a "set hammer," which was resting on a piece of iron, and struck by a sledge. A sliver of steel flew from the hammer, and entered his arm. Arterial blood immediately flowed in a gush, which he arrested by squeezing together the sides of the wound. A tight bandage was afterwards applied. The wound was about three inches above the bend of the elbow, over the edge of the biceps muscle, and in the course of the brachial artery. The arm was indurated from the elbow to the axilla. The pulsation of the artery could not be felt below the wound, nor in the indurated part. There was severe pain in the part, and numbness in the thumb, and fore and middle fingers. The fore-arm was flexed, and immovable. The piece of steel could be felt with a probe.

The forceps were introduced for the purpose of withdrawing the foreign substance, but the attempt was desisted from, owing to a gush of arterial blood which took place. A tourniquet was applied in the axilla, and an incision was made an inch and three quarters below, and two inches above the wound. A great quantity of coagula came from the wound, and it was found that the piece of steel had penetrated the coats of the artery, where it was firmly imbedded. It was removed, and the artery was tied above and below the wound, the ligatures being an inch and a quarter apart, and the wound in the artery about three quarters of an inch in length. There was considerable hæmorrhage at the time of the operation. A wet compress was applied to the wound, and the limb was bandaged from the hand to the axilla. The bit of steel was about the fortieth of an inch in thickness, at the thickest part, about half an inch in diameter, and shaped like the scale of a fish. Pulsation was felt at the wrist on the 8th, and the patient did well.

Bibliographical Notices.

The Institutes of Medicine. By MARTYN PAINE, A.M., M.D., LL.D., Professor of the Institutes of Medicine and Materia Medica in the University of the City of New York. Fifth Edition. New York: Harper & Brothers. 8vo. Pp. 1109.

WE have received the fifth edition of this popular and well-known work. A number of pages have been added in the form of a supplement. It is unnecessary to make any remarks upon a work which has been so long before the public.

Lectures on the Diseases of Infancy and Childhood. By CHARLES WEST, M.D. Third American from the Fourth Revised and Enlarged London Edition. Philadelphia: Blanchard & Lea. 1860.

WE should have noticed this third edition of Dr. West's work long ago, but console ourselves with the reflection that the author is too well known to make it necessary to mention him, and we do it now merely as an act of courtesy, feeling that no words of ours can increase or diminish his reputation.

Nature in Disease, and Miscellaneous Writings. By JACOB BIGELOW. Second Edition. Enlarged. New York: S. S. & W. Wood.

It is unnecessary to repeat what has already been said concerning

this work. The fact that it has reached a second edition proves that it has met with the welcome it deserved.

Rational Medicine. By JACOB BIGELOW. Second Edition. New York: S. S. & W. Wood. 1860.

WE are glad to see the second edition of this work. Even those who cannot go so far as the author, in their skepticism, must bear witness to the general truth of the contents.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, SEPTEMBER 27, 1860.

MEDICAL DEPARTMENT OF THE UNIVERSITY OF MICHIGAN.—The following extracts from the Annual Report of the Regents of the Michigan University, contain truly "liberal and elevated views," and should be published in every journal and newspaper in the land.

"As a University, our great mission is to promote the cultivation of science to the widest extent and in the most thorough manner, in all our departments. We are not to receive our standard from institutions where the pecuniary considerations involved in a large number of students determine the course of instruction. Nor in any department are we to sacrifice the interests of learning, the honor of the University, and the public good, to private considerations. In filling vacant chairs, we are to seek for the best men. In inquiring what improvements can be made, we are to keep steadily in view the real purposes for which the University has been established and endowed. Our three departments may thus be developed more and more on a genuine and solid basis; and in the end we shall reap our reward. The history of all institutions of learning, both abroad and at home, proves most conclusively this great truth, that those institutions which have drawn together the most eminent men as professors, and have pursued the most thorough methods of instruction, have acquired the widest and most enduring reputation, and have been frequented by the largest numbers. * * *

"An illiterate clergyman, by his practical acquaintance with the simple gospel, may be a minister of mercy to the poor, and may even instruct the wise. In law, amid various grades of practice, there may be some which do not require high talent or extensive learning. But in the medical profession there are no grades that admit of ignorance and unskilfulness. No profession demands such a wide range of science and such consummate skill, and every practitioner here meets with the same cases, and is subject to the same demands upon his knowledge, his art, and his experience. * * * Sciologists in medicine are more dangerous than in any other profession, for all physicians deal with the same subjects, and in their practice may invade life instead of merely affecting modes of faith and worship or endangering property."

"Most of the medical schools, although incorporated, partake of the nature of private enterprises. Some, perhaps, are undertaken to aid the private practice of the professors. Others certainly prove very profitable in a pecuniary way. Their influence has been rather to lower than to elevate the standard of medical attainment, and to introduce into the profession, under the most honorable title of Doctor of Medicine, many ignorant and incompetent men. A low standard of professional attainment, thus created in our country, forms a formidable obstacle to all attempts to elevate the schools. * * * As yet, in our country, our medical schools have been very much of the same character; and the experiment remains to be fully tried of placing a school of a lofty standard in competition with the

ordinary schools. Our own medical school has made some worthy improvements, and surely, as far as the experiment has gone, has no reason for discouragement."

LONDON AND ITS HEALTH.—London, says the Registrar-General, now covers 121 square miles—a square of 11 miles to the side. It is equal to three Londons of 1800. It increases at the rate of 1000 a week, half by births (their excess over deaths), and half by immigration (its excess over emigration). It is remarkable that in London, one in six of those who leave the world, dies in one of the public institutions—a workhouse, hospital, asylum, or prison. Nearly one in eleven of the deaths is in a workhouse. For the improvement of the health of London three things are to be aimed at—pure air to breathe, pure water to drink, and a healthy soil to live on. The Registrar-General observes that there are above 2000 medical men in London and its vicinity; but they are chiefly employed in treating disease—the art of preventing it is not cultivated; it is not taught in any of our medical schools; it is not formally the subject of examination in our universities. The father of a family does not go to the doctor and say, "How can I preserve my health, and make my children well and vigorous, and develope all their faculties to the fullest extent?" Imagine the 2000 members of the most enlightened profession in the country employed in instructing the people in the way of a healthy life. How many thousands of lives would be saved every year in London! How much better and happier the population would be! A beginning of a movement has been made in the right direction, under Sir B. Hall's Act. Medical health officers are appointed in the various districts of London, and many of them are working courageously against ignorant opposition, with success. They deserve public approbation, for they have done quietly a great deal of good work, and it is probable have saved many lives and prevented much sickness.—*London Times*.

A NEW COLLEGE FOR THE TRAINING OF IDIOTS.—In 1857, we favorably noticed a little work by Mr. Abbott, M.A., of Queen's College, Cambridge, in which he urged the utility of a Government grant for the education of the twenty thousand idiots, now placed in our lunatic asylums or living at home. Mr. Abbott's appeal met with no response, and we are glad to find that, instead of waiting for parliamentary support, he has put his shoulder to the wheel, and opened at Lansdowne House, Greenwich, an institution for the training of idiots of the upper classes. To reclaim the idiot, he must be tutored by a more impartial authority than can be found in the family circle; by a tutor well acquainted with the wonderful cunning by which the idiot evades discipline, and that tenacity of will by which he has all his life shaped his family to his own imperfect ends. We are glad to find that the institution is placed under medical supervision, and that two physicians, Dr. H. Osman and Dr. J. R. Hancorn, reside on the premises.—*London Lancet*.

IMPROVED TASTE TO COD-LIVER AND CASTOR OILS.—Cod-liver or castor oil, shaken up with an equal volume of water distilled off the leaves of the wild cherry tree, in a manner similar to that directed in the Edinburgh or Dublin Pharmacopœia for cherry laurel water, and left to rest forty-eight hours before separation, acquires by this simple

operation an extremely sweet perfume and agreeable taste of almonds ; the taste remains as long as the digestion lasts. Oil flavored in this way could be taken by many patients who reject it in its natural state. Castor oil is not affected in its purgative action by this process.—*Louisville Monthly Medical News.*

TUMBLETY FINED.—This well-known character, we are happy to perceive, has received his due deserts at last. We never met with an individual who excelled him in effrontery, nor did we ever, in all our experience, witness a more thoroughly uneducated man, more idolized we were almost going to say, by the public than he, during the time he remained in this city. His surgery, or consulting rooms, as he was pleased to term them, were crowded, and guineas were poured into his lap by parties who paid with grudge the smaller fees demanded in ordinary practice by the regularly-educated physician, or, as not unfrequently happened, never paid them at all. We notice, in one of our exchanges, that he has been fined, at St. John's, N. B., £20, and costs, amounting to 30s. 6d. additional, for assuming the title of M.D., contrary to the provisions of the Medical Act. We are not acquainted with the medical law of that province, but we would wish to know if there is not a law in force there, under which he could have been convicted for practising without a license.—*British Am. Journal.*

BIRTHS AND DEATHS IN PHILADELPHIA, IN 1859.—The total number of births in this city during the last year was 14,832, of which 7,669 were males, and 7,163 females.

The number of deaths within the same period was 9,742, of which 5,160 were males, and 4,582 were females. Of the above, deducting the stillborn, of whom there were 658, there were males, of 20 years and upwards, 1,917 ; under 20 years, 2,508 ; of females, of 20 years and upwards, 1,699 ; under 20 years, 2,249. The above list comprises 1,505 deaths by pulmonary phthisis ; 544 by inflammation of the lungs ; 520 by convulsions ; 408 by cholera infantum ; 366 by marasmus ; 267 by typhoid fever ; 234 by dropsy of the brain ; and 330 by inflammation of the brain. The mortality from cancer was 132.—*N. American Medico-Chirurgical Review.*

NEW SURGICAL APPOINTMENT.—MR. R. K. BROWNE, a member of the class which first graduated at the New Medical College (Long Island College Hospital) in Brooklyn, immediately after obtaining the degree of Dr. was appointed Resident Surgeon to the College Hospital, and is now, we learn from an exchange, satisfactorily accomplishing the duties of the office.

THE CLIMATE OF MINNESOTA FOR CONSUMPTIVES.—DR. B. S. LAWSON communicates to the *Cincinnati Medical and Surgical News* an interesting letter from one of his patients who had left his home in Cincinnati and spent some months in Upper Iowa and Minnesota, with great relief to his phthisical symptoms. In some remarks introductory to this letter, Dr. L. says :—

“I know of many very flattering reports in reference to the results following a removal to the cold region of the north-west, and the effect has not been merely temporary, but a return to perfect health ; unless in cases in which disorgani-

zation of the lungs had progressed to so great a degree as to make such a thing impossible. Of the truth of this, we cannot be very skeptical, for we know that *regularity* of temperature is peculiarly advantageous in all pulmonary affections, and without it we find it to be extremely difficult to arrest the progress of the disease, even for a short time, to say nothing of the impossibility of effecting a perfect cure.

"The climate of Minnesota is peculiarly bracing, and the seasons are not subject to frequent and sudden changes, as is this portion of our country, in which consumption is yearly making such fearful inroad on human life and human happiness. Instead of enervating both body and mind, it produces a directly opposite result; and those who go there at once find their appetites sharpened, their strength increased, and their mental powers restored to their original standard."

THAYER'S FLUID MEDICINAL EXTRACTS. *Messrs. Editors*,—I feel it a duty, as well as pleasure, to express, through your columns, the high opinion I have formed of the preparations named above. Heretofore, my confidence in fluid medical extracts has not been great, having found them unreliable as to purity and strength, and frequently totally inert. But after giving those manufactured by Dr. Thayer a fair trial, I can most fully endorse the assertions made in the preface to his catalogue, that "they are uniform in strength, produce their peculiar effects from a small dose, are easy of transportation, always ready for use, and will keep for any length of time."

I. G. BRAMAN.

Brighton, September 24th, 1860.

DR. W. H. DONNE has been elected Superintendent of the Louisville Marine Hospital.—Dr. John H. Tate, of Cleveland, Ohio, has been appointed to the Chair of Obstetrics in the Cincinnati College of Medicine and Surgery.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, SEPTEMBER 22d, 1860.

DEATHS.

	Males.	Females	Total
Deaths during the week,	47	53	100
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	43.8	43.4	87.2
Average corrected to increased population, . . . . .	..	..	97.3
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infan.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
19	19	1	6	1	1	3	1

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.093	Highest point of Thermometer,	77°
Highest point of Barometer,	30.370	Lowest point of Thermometer,	46°
Lowest point of Barometer,	29.728	General direction of Wind,	West.
Mean Temperature,	63°.9	Whole am't of Rain in the week	2.641 in.

NOTICE.—We are requested to announce to the members of the Mass. Med. Society that "No. 3, Vol. I. of the Publications of the Mass. Med. Society" was mailed from this office on Wednesday, Sept. 26th, and to call their attention to the advertisement of the adjourned Annual Meeting of the Society.

COMMUNICATIONS RECEIVED.—Passages from a Surgical Note-Book.

BOOKS.—Memoranda Medica, or Note-Book of Medical Principles; for the use of Students. By Henry Hartshorne, A.M., M.D. Philadelphia. (From the Publishers.)

Deaths in Boston for the week ending Saturday noon, September 22d, 100. Males, 47—Females, 53.—Anæmia, 1—apoplexy, 1—congestion of the brain, 1—disease of the brain, 1—inflammation of the brain, 1—bronchitis, 2—cancer (of the breast), 1—cholera infantum, 19—cholera morbus, 3—consumption, 19—croup, 1—debility, 1—diarrhoea, 4—puerperal disease, 1—dropsy, 2—dropsy of the brain, 4—drowned, 1—dysentery, 3—erysipelas, 1—scarlet fever, 1—typhoid fever, 2—gastritis, 1—disease of the heart, 2—homicide, 1—intemperance, 2—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 6—marasmus, 2—measles, 1—premature birth, 1—scalded, 1—smallpox, 1—suicide, 1—syphilis, 1—tabes mesenterica, 1—teething, 2—tumor (of the liver), 1—unknown, 3.

Under 5 years, 53—between 5 and 20 years, 3—between 20 and 40 years, 25—between 40 and 60 years, 11—above 60 years, 8. Born in the United States, 70—Ireland, 23—other places, 7.

THE

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No. 10.

PASSAGES FROM A SURGICAL NOTE-BOOK.—No. I.

BY C. POWERS, M.D., MORAVIA, N. Y.

[Communicated for the Boston Medical and Surgical Journal.]

MANDANA HIGGINS, aged 24, was shot, purposely, through the body, by a young man named Albert Wood, in a paroxysm of erotic mania, in the presence of Mrs. Clark, the mistress of the house, in which they both lived as farm servants, on the 25th of March, 1857. The girl fell to the floor, and Wood, supposing her to be dead, re-loaded his single-barrelled rifle-pistol—a more murderous arm in its effects than either a “Colt” or a “Derringer”—and shot himself directly through the heart.

Mrs. C. had fled to the neighbors for help immediately after the girl was shot down, and when it arrived Wood was quite dead, though his victim was yet living and conscious. She stated that she distinctly remembered her sensations on being shot—she felt no pain—she only felt a severe blow at the pit of the stomach. She also remembered trying to reach a lounge, and falling near it, after which she lost consciousness for a few minutes, until she was roused by the report of the second pistol, when she found herself singing a hymn. She said that Wood groaned two or three times, but did not speak or struggle.*

I arrived at the house about two hours later. The wounded woman was perfectly calm and collected, but apparently sinking from the shock and internal hæmorrhage. Her extremities were cold, pulse weak, tremulous, and about 90, countenance pale, sunken and ghastly. She felt no pain, but said she was fully aware that there

* This tragic exhibition of human depravity was committed under the impulse of frantic jealousy, though no one would have previously suspected, from the quiet demeanor of the boy (he was but 18 or 19), that he was capable of such a volcanic outburst. Both himself and the girl were of questionable antecedents, and there is in the case a long coil of guilt and crime, involving others, which it is not now necessary to unravel. The affair made considerable noise at the time, and found its way into some of the New York illustrated papers, under the title of the Moravia Tragedy.

was no help for her. On examination, it was found that the ball had entered the sternum, just in the median line, about half an inch above its lower extremity, and, passing obliquely backwards and downwards straight through the body, had emerged close to the spine, on the right side, just on a line with the crest of the ilium, cutting its way out through all the folds of her under garments and dress, and finally lodging in the back of the chair. This was of elm, thoroughly seasoned, and over half an inch thick, and yet the ball, preserving the same downward obliquity of direction—showing that it had not glanced in the least—went, at that angle, more than half way through it. The ball was slightly flattened on one side, and much bruised on another; the first probably from contact with the breast-bone, the latter from the back of the chair. Warmth was applied to the feet and limbs, and hot whiskey—the only liquor in the house—was administered freely; still she continued to sink. Her extremities became icy cold, the pulse ceased to beat at the wrist, her face grew colder, still more pallid and rigid. I told her that she could not probably live more than an hour or two, and asked her if she had any word or message to leave for any one. “None whatever,” she calmly replied, and resolutely turned her face to the wall to die, now and then saying to herself, in a low tone, “how *could* he do it?”

But death, apparently so near, did not then come. After an hour or two, there were feeble evidences of reaction; the arteries again throbbed at the wrist, warmth gradually returned to the extremities and surface, and she became every way more comfortable.

The pistol, when discharged, was so near her, that the wound in her breast was quite large; in fact, more than large enough to admit the finger as far as the sternum. There was but little sensibility about the wound; its edges looked blue and livid, perhaps partially burned by the powder. I removed some ragged spiculæ from the perforated sternum, and a part of one of the hooks of her dress—a piece of plated wire an inch long—which had lodged against its outside. The *patch* of the ball was never found; this, as well as a piece of her dress, cut out by the ball, were unquestionably driven through the bone into the thorax, or possibly accompanied it farther, through the diaphragm into the peritoneal cavity.

As reaction became more completely established, she was kept steadily under the influence of morphia. As the thirst became urgent, ice and ice-water were freely given, though in small quantities at a time, and, after two or three days, rice-water and toast-water. The wound in the back, where the ball made its exit, was very minute. There was a trifling discharge there for a day or two, and although we tried to keep it open for the discharge of pus, it soon permanently closed. The wound in the breast was covered with lint, over which was laid a piece of adhesive plaster. As soon as suppuration was established, this was removed to allow

the matter to escape; at first the discharge was a mixture of blood and water, but it soon became sanious, and, after three or four days, very profuse.

The second day, she vomited water tinged with blood. With the aid of the morphia, she generally obtained two or three hours' sleep each night, though there was always a nightly exacerbation of fever, when there would be increased thirst, restlessness, and, sometimes, delirium.

There was little change for four days, the pulse remaining at about 90. On the fifth, there was a decided alteration for the worse; the pulse went up to 120, the thirst, pain and restlessness increased. On the sixth day, the pulse was 145, respiration hurried, thirst intense, skin hot and dry, countenance Hippocratic, and terribly sunken, tongue dry and dark, severe chills, and increased delirium. The renal secretion, which had all along been scanty and high-colored, was nearly suspended. She vomited about half a pint of sanious fluid, exactly resembling that which was so profusely welling up through the orifice in her breast.

Having every reason to suppose that the intestines, and possibly the stomach, were, or at least might be wounded by the ball, no cathartic of any kind had been given, and even the natural peristaltic action was sought to be arrested by the morphia. But on the fifth day, an enema of warm milk and water was administered, which produced an evacuation of fæces, which, however, were probably in the large intestine at the time of the injury. On the seventh day this was repeated, and the attendants saved the dejection for my inspection. Mixed with the fæcal matter there was bloody fluid, several small pieces of flesh (over an inch long), and numerous shreds, patches and flakes, which appeared to be portions of the stomach and bowels.

The reader can draw his own conclusions as to what *must* have been the state of things along the route traversed by the ball, when the character of the matter vomited and passed by stool is considered. Who would have hesitated to pronounce, as I did, the final close just at hand? But, as if to confound all our vaticinations, just at this moment she began to mend.

On the seventh day, the pulse fell to 130, and the nightly exacerbations were milder. Eighth day—pulse down to 113, skin cool, thirst moderate, sleeps more, looks better every way, and takes, with relish, a little chicken broth. Ninth day—pulse the same, and a spontaneous, perfectly natural evacuation from the bowels. On the night of the tenth day, for the first time since she was wounded, she slept soundly and quietly all night; the pulse, on this and the succeeding day, the same, 113.

The Public, that great outside conclave, that sits in judgment on every case, surgical and medical, and will thus sit to the end of time, now "pronounced" that she would surely recover. It was in vain that I urged the gravity of the injury, and specified the unavoid-

ably resulting lesions—I was met by the unanswerably conclusive and logical inquiry, “Did not Bill Poole live a fortnight with a bullet in his heart, and *almost* get well at that?” The poor girl herself was never deceived for a moment by this deceitful lull, and steadily persisted in saying that she *knew* she had no chance of recovery whatever; and, to do her justice, I never saw any one display more fortitude, or look death more steadily in the face, as he came on from day to day.

Twelfth day.—The most remarkable feature of her case, at present (except the fact that she is alive at all), is the very profuse discharge from the wound in her breast. The whole width and depth of this, above the sternum, is of less capacity than a common thimble, and yet from this wound there is thrown out, each twenty-four hours, more than a half pint of sanious pus. It is preposterous to suppose that this small secreting surface can daily secrete such an amount. It *must* ooze up through the sternum, and against the force of gravity at that. If not walled in at every point by the effusion of fibrin, why does it not spread through the thorax and abdomen? There have been no signs of thoracic or abdominal inflammation, no cough, no tympanitis, or tenderness on pressure.

Thirteenth day.—About midnight, after having been unusually comfortable through the day, she began to sink, and at 3, A.M., the pulse at the wrist stopped suddenly, like the wheels of a clock. She lingered, cold and pulseless, but perfectly conscious of her condition, until 5, P.M.

Autopsy, twenty-two hours after death. On raising the sternum, the pericardial sac was found considerably distended with fluid, and, on making an incision, six or eight ounces escaped. The whole exterior of the heart, and the whole interior surface of the pericardium, presented a most singular appearance, both surfaces being covered with granulations, or ragged papillary projections, knobs and points, varying in size from a bird-shot to half an inch in depth. These growths were exceedingly irregular, though generally acuminate. No smooth surface could be found in any portion of either surface of the pericardial sac. These fibrinous exudations were of course the result of recent pericarditis. There was some hypertrophy of the left ventricle, and traces of fatty degeneration, though, until wounded, she had never complained of cardiac trouble, and during her illness there was no irregularity of pulse, or pain in the cardiac region.

A long gun-shot probe was now passed down the still patent track of the ball, eight or ten inches, and, keeping the probe steadily in the wound, we proceeded, carefully and slowly, to follow it down. This was a work of time and difficulty, as all the parts were *welded* together from inflammatory action, and much altered in character and appearance. For instance, the diaphragm, around the wound, was inflamed, and three fourths of an inch in thickness. The

ball had just missed the stomach; the side of it next the wound was inflamed, both externally and internally, and it contained some two quarts of watery fluid, in which were floating small masses of pus. The ball had passed through the liver, in which the length of its track was two and a half inches; the side of the wound there looked torn and bloody, with a little pus. The omentum around the wound was inflamed and thickened. On separating the small intestines with great care, we could find no place where any of them were wounded, though they, too, in the neighborhood of the track of the ball, were inflamed, thickened, and cemented together. The right kidney was transfixed nearly through its centre, and on cutting it open, it looked rough, mangled and bloody, the wound appearing as though just made—nature not having made the slightest attempt at reparation. The ball passed thence out of the back, just clearing the spine, on its right side.

Is it not extraordinary, that a person could live thirteen and a half days with a wound penetrating the thorax, diaphragm and abdominal cavity, freely communicating with the external air all the while; with a shattered liver and kidney, yet with no pleuritic or peritoneal inflammation, no cough, no tympanitic distension, nor abdominal tenderness?

Another puzzling inquiry here arises—whence the pieces of flesh, and patches of what was apparently mucous membrane, and shreds of intestine, which passed through the bowels; and whence the blood and sanious fluid so often vomited?

No blood or pus could be found in the thoracic or abdominal cavity. Must there not have been internal hæmorrhage, the first few hours, when she was apparently so near death; and if so, what had become of the blood? And what was the immediate cause of death at last? Probably acute pericarditis, yet its most prominent signs were wanting.

Before the *post-mortem* examination, I was very confident that the stomach and bowels must have been cut by the ball. On the whole, it must be confessed that this examination, instead of shedding any light, certainly “radiated darkness” on the whole case.

September, 1860.

RESEARCHES UPON THE ERECTILE ORGANS OF THE FEMALE.

[Translated for the Bos. Med. and Surg. Journal, by WM. READ, M.D.—Continued from p. 175.]

Mechanism for the adaptation of the fimbriated extremity to the ovary.—The general fact, that the ovary, the tube and the uterus are enveloped in a common muscular membrane, is especially important with reference to the connections which the contractile fibres establish between the gland of the ovary and its excretory canal. We

shall see that these connections result chiefly from the double radiation of the utero-ovarian and the ovario-lumbar ligament in the membrane which binds the tube to the ovary. It is easy to comprehend, in a general way, how, by the contraction of the muscular fibres, the tube and the fimbriated extremity especially, towards which they converge, are drawn in contact with the ovary. This is the real mechanism, the only one possible for this physiological act, so important that if it is disturbed or prevented, the great function of reproduction of the species becomes impotent.*

The purely hypothetical explanations by aid of which we have have thought up to the present time to account for this phenomenon, are utterly devoid of foundation. Müller considers them so when he declares that *he is far from knowing the forces which unite to convey the ova, fecundated or not, into the Fallopian tubes.*

Indeed, it is certain that the vascular turgescence produces no peculiar movement in the tube, and that, moreover, as I have pointed out, we do not find in this organ the essential anatomical conditions for producing the special phenomenon of erection.

As to the action of the muscular coat of the tube, to which we have too readily attributed a movement of reptation,† or even a projectile movement of the fimbriated extremity towards the ovary, it would be powerless to bring about such a result.

The longitudinal fibres are evidently the only ones which can change the *situation* of the fimbriated extremity; it is almost unnecessary to remark that their contraction can have no other effect than to diminish the length of the canal, to cause its free extremity, the fimbriated extremity, to approach its fixed end, the uterine orifice, and in consequence remove it from the ovary. For that not to take place, it is necessary that the fimbriated extremity, while the longitudinal fibres are contracted, should already be drawn and fixed to the surface of the ovary. But, a comparative investigation of the less important arrangements peculiar to the different species show, that, under every condition, the muscular apparatus which I have brought into notice, directs and governs

* NOTE BY THE TRANSLATOR.—The following extract (*London Lancet*, Dec. 17, 1859, p. 618, proceedings of the Pathological Society of London) is in verification of the demonstration of Mr. Rouget:—

"Mr. Spencer Wells presented the pelvis of a woman who had died of tetanus after perineal suture, performed for the relief of prolapsus uteri, with cystocele and rectocele. The symptoms in this case had pointed to injury of the perineal nerves, and increased reflex excitability of the spinal cord, as the cause of the tetanus; and Mr. Wells had been anxious, therefore, to have a minute examination made of the nerves implicated in the operation. Mr. Couper, Demonstrator of Anatomy at the London Hospital, had made the *post-mortem*, and had removed the whole pelvis and afterwards made a careful dissection. . . . This preparation also showed very distinctly Rouget's Utero-Ovarian Muscle, Mr. Couper having the credit of being the first to demonstrate it in this country. It was plainly seen to consist of bundles of muscular fibres, forming a fan-shaped muscle between the folds of the broad ligament, and showing that the uterus, the ovary and the Fallopian tube are enveloped in a common muscular membrane, and that the contraction of the bundles of muscular fibres would draw the ovary and the fimbriated extremity of the Fallopian tube together; and, by enclosing the venous plexuses near the ovary, would complete the erectile system of the female organs of generation, so beautifully delineated by Dr. Savage, and explain very simply the mechanism of ovulation."

† The movement of reptation, or vermicular movement of the tube, actually exists, but it has no influence, except to advance the progress of the ovum, after that has penetrated into the oviduct.

the adaptation only of the fimbriated extremity to the surface of the ovary, and the passage of the ovum into the orifice of the tube.

In the majority of the species of the mammalia (*ruminants, rodents, carnivora, and insectivora*), the last portion of the tube describes a grand circumvolution which brings the fimbriated extremity back to the outer extremity of the ovary, the ovario-tubal muscular membrane (*mesometrium*, ala of the tube), accommodates itself to this bend of the canal, folds upon itself, and falls like a curtain, the free border of which, parallel to the surface of the ovary, embraces one of the extremities of the fimbriated extremity, more or less intimately fixed to the ovary by its other extremity. The membrane or ligament of the ovary (*mesoarium*), blended at one of its edges with the extremity of the tube (*mesometrium*), seems to wind in an opposite way; the free edges of the two membranes enclose—one the ovary, the other the fimbriated extremity—bring them opposite each other, and circumscribe the orifice of a large cavity or peritoneal pouch, of the ovary.* It is sufficient to see this arrangement to comprehend how the muscular fibres of the two membranes, condensed particularly at the free edge, close this orifice by their contraction, like a button-hole, how the application of the fimbriated extremity to the surface of the ovary results necessarily from the drawing together of the edges of this button-hole; how, in a word, the fimbriated extremity is, not only brought into contact with that extremity of the ovary which is near to it, but can, if necessary, be drawn, be promenaded, over the whole surface of that gland, by the contraction of the fibres of the mesometrium, in reality a *gubernaculum tube*, to which come in aid of this simultaneous contraction, the fibres emanating from the ligament of the ovary (*gubernaculum testis muliebris*).

Whilst in the *she goat* the fimbriated extremity is still at a distance from the ovary, and the peritoneal sac largely open, in the rabbit affairs are so arranged that the two membranous folds of the tube and the ovary, in contact at their edges, even in a state of repose, cover the orifice of the ovarian sac which cannot be seen without separating them. Naturally also the fimbriated extremity floats in contact with the ovary without any active intervening force; but this adaptation, purely passive, incomplete and insufficient for the accomplishment of the function, is transformed into a forced occlusion of the peritoneal sac, and an exact application of the fimbriated extremity to the surface of the ovary by the contraction of the parallel muscular cords which border the two membranes.

* This peritoneal pocket of the ovary has been compared, with reason, to the tunica vaginalis of the testicle. The analogy is all the more complete that in the two cases, the muscular membranes form the parietes of these serous sacs. I have elsewhere shown (*Comptes-rendus de l'Acad. des Sciences*, May, 1856), that the fibres of the proper muscle of the cord, in man, in the horse, &c., spread themselves out in a net work upon the true tunica vaginalis.

The arrangement is almost similar in the hedgehog. But in another species of rodents, the guinea-pig, in a great number of the carnivora, and especially in the bitch, the edges of the two membranes are not only approximated, but are closed up throughout their whole length, except just at the ovary and the fimbriated extremity, where nothing is left but a straight button-hole, or simple slit even; and still more, this last vestige of the primal arrangement may itself disappear, and the ovary be enclosed with the fimbriated extremity in a *vaginal* capsule, closed on all sides (bear, sea otter, porpoise, &c.) Is the action of the muscular apparatus which I have described useless on this account—are its fibres themselves atrophied? Not the least in the world; their very marked development proves that if the first act of their function, the approximation of the fimbriated extremity and the ovary, is, so to speak, economised, they have still another rôle to fill; the strong bands which embrace the fimbriated extremity and the ovary, keep them firmly applied to each other, whilst the fibres disseminated through the walls of the sac keep that closed on every side, and perhaps from necessity force the ova, which have accidentally fallen into the *vaginal* cavity, to enter into the fimbriated extremity.

The inclusion of the ovary in a peritoneal capsule more or less completely closed is, moreover, nothing more than the result of an accident of evolution, become, in some way or other, normal in certain species. Thus, in the bitch, in the early period which follows her birth, we find no peritoneal capsule of the ovary. Indeed, the ala of the tube falls like a veil above the gland, but by raising and turning over this membrane and the fimbriated extremity which it supports, we clearly discover the ovary perfectly free, and not separated at all from the great cavity of the peritoneum. It is only at a later period that adhesion takes place between the border of the tubal membrane, the contiguous edge of the mesoarium, and the surface itself of the gland; these become separated, enveloped in the folds of the muscular membranes, and the vaginal sac is formed, without anything being changed in the texture, or in the connection of the parts, and consequently without any essential modification of the mechanism of their function taking place.

The arrangement of the Fallopian tube, the fimbriated extremity, and the ovary seem to be, in the human species, as little favorable as possible for the accomplishment of the function of ovulation. There is not, perhaps, among the mammalia, a single animal in which the orifice of the tube is more independent, or the ovary less sheltered by the neighboring membranes, and communicating more freely with the general cavity of the peritoneum. Let the partisans of a *final cause* admire the art with which, the ovary and the orifice of the oviduct being enclosed in the same envelope, the passage of the ovule is protected against every chance of disturbance, in the bitch and in the bear; for here they will have nothing

to admire, unless it be perhaps the more numerous chances of sterility which a spirit of foresight, much appreciated by certain economists, would have reserved for the human species. How frequently, moreover, we find, as a result of local peritoneal inflammations, almost always undiscovered during life, the fimbriated extremity of the ovary itself, retained by morbid adhesions at a distance from each other, or in contact, so that the orifice of the oviduct cannot present itself to encounter the ovule!

In the normal state in the human female, the Fallopian tube, the terminal circumvolution of which, intended to bring the fimbriated extremity back towards the ovary, is hardly indicated, extends its fringed edge freely at a distance on the average of from one half to three quarters of an inch, from the nearest extremity of the ovary. The length of the peritoneal fold (free border of the *mesometrium*), which stretches from one to the other, allows the fimbriated extremity to reach the farthest portions of the ovary. This property compensates for the small size of the fimbriated extremity, which, relatively, less considerable than in animals, equals scarcely one third of the surface of the gland.

However, no previous arrangement prepares the coaptation of the parts in any way. Every thing is subordinate to the action of the muscular apparatus, which directs the fimbriated extremity towards the ovary, draws it into contact, and according to the situation of the point when a prominent vesicle is ready to rupture, forces, if necessary, the tube to bend, and twist upon itself even, and carry its orifice as far as the uterine extremity of the ovary. What other apparent complication of these different acts there may be, which evidently necessitate the intervention of a special agent, the arrangement of the muscular apparatus which I have described, enables us to comprehend the mechanism. The direction of the two kinds of muscular fibres which, having their fixed points at the lumbar region and at the uterus, embrace the whole length of the tube and the fimbriated extremity, clearly explain the movements executed by these organs, to carry them before and behind, and the possibility of the inflection of the tube upon itself even, and the application of the fimbriated extremity to the surface of the ovary. The whole, in a word, is reduced to the mechanism by which the opening of a bag closes itself, the borders of which wrinkle, and come near together, when we exercise traction upon the strings which, attached to it, stretch all around its edges. It is thus that the fundamental act of ovulation, the passage of the ovum from the ovary into the oviduct, is accomplished, wherever the two organs have not permanent continuity, by aid of the ovario-tubal muscular apparatus.

But this rôle, so important and so general, is not the only one which this apparatus fulfils in the human species. An accident of organization which has become normal, the erectile development of certain vascular formations enclosed in the muscular metro-ovarian

membrane, involves such consequences that an epiphenomenon of ovulation raises itself almost to the rank of a new function. This is *menstruation*.

[To be continued.]

INVESTIGATION OF TRICHINA SPIRALIS.

By R. LEUCKART.

PROFESSOR LEUCKART has communicated the following results of his investigation of *trichina spiralis* to the Royal Academy of Sciences of Göttingen:—

1. *Trichina spiralis* is the young state of a hitherto unknown, small, nematode worm (of 1.5–2.8 mill. in length) for which the generic name of *trichina* must be retained.

2. It inhabits the intestinal canal of numerous warm-blooded animals, not only mammalia (dogs, cats, pigs, sheep, rabbits, and mice; also, undoubtedly, man), but also birds (the common fowl), and, indeed, always in large quantity.

3. The intestinal *trichina* attains its full sexual maturity as early as two days after its immigration.

4. The eggs of the female are developed in the vagina into minute filaria-like embryos, which are extruded without egg-shells (from the sixth day onwards).

5. The new-born young immediately set about their migration. They penetrate the wall of the intestine, and pass through the cavity of the abdomen directly into the muscular envelope of their host.

6. The course upon which they advance is indicated beforehand by the intermuscular masses of cellular tissue.

7. The majority of the migrating embryos remain in the groups of muscles immediately enclosing the cavity of the body (the abdominal and thoracic cavities), especially the smaller ones, and those containing most cellular tissue.

8. The embryos penetrate into the interior of the individual muscular fasciculi, and here attain, within fourteen days, the size and organization of the well-known *trichina spiralis*.

9. The infected muscular fasciculus loses its previous structure immediately after the penetration, the fibrillæ becoming broken up into a finely granular substance, and the muscular corpuscles acquiring the form of oval nucleated cells.

10. Up to the full development of the *trichina spiralis*, the infected muscular fasciculus still retains its original tubular form; whilst subsequently its sarcolemma thickens and it becomes gradually shrivelled from the extremities.

11. The spot occupied by the parasite persists, in the form of a spindle-shaped enlargement, in which the well-known lemon-shaped

or globular calcareous shell is afterwards deposited (although only after a longer time).

12. The migration and development of the embryos take place also after the transference of pregnant trichinæ into the intestine of another (suitable) host.

13. The further development of the trichina spiralis into the sexually mature animal is quite independent of the formation of this calcareous shell, and takes place as soon as the young state is fully developed.

14. The male and female individuals are distinguishable even in the young state (trichina spiralis).

15. The immigration of the brood of trichina in large quantities causes very serious symptoms; namely, peritonitis, in consequence of the penetration of the wall of the intestine by the embryos; and lameness, in consequence of the destruction of the infected muscular fasciculi.

16. Feeding upon flesh containing trichinæ is also followed by more or less dangerous symptoms, according to the quantity of the imported parasites; namely: an enteritis, often causing death, accompanied by bloody (*crupöser*) exudations, which are sometimes thrown down in ragged clots and evacuated (rabbit), and sometimes converted into psorospermia (dog), or pus-corpuscles (cat, mouse.)—*Göttinger Nachrichten*, April 30, 1860, p. 135. *The Annals and Magazine of Natural History*, June, 1860.

BERLIN, May 16, 1860.

The microscopical preparation which I have the pleasure to forward to you, has not only a serious pathological importance, but, I may venture to say, with regard to the discovery of the new and alarming disease it tends to illustrate, is invested with a truly historical interest. It is a minute portion of the pectoral muscle of a rabbit, which died under symptoms of progressive muscular paralysis, after being fed with the flesh of another animal of the same species, which died under similar symptoms from the same cause; for it likewise had been fed with a piece of muscle taken from a rabbit which had perished from the immigration of myriads of trichinæ into its muscular system, about a month after a piece of human muscle, in which a number of these parasites were imbedded, had been introduced into its stomach. The piece of human muscle, however, was taken from the body of the first patient whose death was ascertained to have been due to trichinatus disease.

From the remarks made by Professor Virchow in the opening lecture of his most excellent course of pathological demonstrations for the present session, and from a series of papers by that eminent pathologist, and by Professor Zenker, of Dresden, I have compiled the following sketch, which will serve to illustrate for

the information of your readers the salient points of this most important subject.

Trichina spiralis, known formerly only in a capsulated state, was considered more as a zoölogical curiosity than as a subject of pathological interest. No symptoms were known to betray its presence; and it was, perhaps, more frequently discovered in the dissecting room of the students than at the *post mortems* conducted by the pathologist. Since its discovery by Owen, numerous conjectures have been formed relative to the nature, origin and propagation of this singular parasite. Herbst believed it to be identical with filaria, Meissner and Davaine regarded it as a larva of trichosoma, and Küchenmeister considered it to represent an undeveloped, juvenile stage of tricocephalus dispar. The latter idea seemed to be confirmed by some experiments of Leuckart, who found trichinæ in the muscles of an animal fed with tricocephali; these experiments could, however, not be considered as conclusive, as the examination of the muscles before the experiment was commenced had been neglected. Herbst was the first to institute feeding experiments with trichinatus muscles. He found trichinæ in the muscles of animals experimented upon; but the connective links between the parasites introduced into the stomach and those found in the muscles being deficient, no perfect light was thrown on the subject by these observations. The first experiments of Virchow, instituted last summer, tended materially to supply these deficiencies. In the intestinal canal of an animal fed with trichinatus muscle, he found the villi crowded with psorospermia; and free in the intestinal mucus numerous thread-like worms, of the form of trichinæ, of both sexes, the sexual utericle of the male filled with sperm-cells, that of the female densely stocked with ovules. Trichinæ were thus proved to be bi-sexual. Their non-identity with tricocephali was also placed beyond doubt. The numerous points still requiring elucidation were being reserved for further inquiry, when in January of the present year, the following case was observed by Prof. Zenker, of Dresden, which, in conjunction with the experiments to which it gave impetus, and for which it supplied the material, not only served to bring about a final settlement of the zoölogical part of the question, but disclosed the startling and alarming pathological fact that trichina spiralis, hitherto considered to be an innocent parasite, is in reality the most terrible and dangerous of its kind—that it can actually kill a healthy adult in a few weeks, under the most distressing symptoms:

On January 12, 1860, a robust maid-servant, twenty-four years of age, was admitted into the Dresden Hospital. She had been indisposed since Christmas, and confined to bed since New Year's day; complaining of depression, lassitude, sleeplessness, loss of appetite, heat, and thirst. These symptoms persisted on her ad-

mission; there was considerable pyrexia; the abdomen painful and tympanitic; and although neither splenic tumor nor roseola were present, the case was put down as one of typhoid fever. A remarkable affection of the whole muscular system now rapidly supervened, consisting in extreme painfulness of the extremities, with contractions of knee- and elbow-joints, and œdematous swelling, particularly of the legs. The pain was so severe that the patient was constantly moaning. Pneumonic symptoms supervened, and death took place on January 27th, preceded for twenty-four hours by an apathetic condition. The *post-mortem* examination showed in the internal organs merely an atelectatic condition of the left lung, with numerous small lobular infiltrations, bronchitis and hyperemia of the mucous lining of the ileum. The muscles, however, which showed a grayish-red color and a slightly freckled appearance, were found, on a microscopic examination, to harbor vast numbers of non-capsulated trichinæ. The parasites were living, some coiled in spirals, others with extended bodies; and all (as Prof. Virchow was the first to show, in a fragment of muscle which was forwarded to him for examination) living within the sarcolemma of the primitive fibrils. They showed various stages of development; they were diffused over all the striated muscles of the body, with the exception of the heart, and that in such vast numbers, that under a small magnifying power as many as twenty were in the field of vision simultaneously. The muscular substance was otherwise fragile, homogeneous, non-striated, and showed numerous transverse fissures. The intestinal mucus was found to be swarming with mature trichinæ of both sexes; and the remarkable fact was elucidated, that female trichinæ are viviparous; the central portion of the bodies being observed to be full of well-developed embryos.

Inquiry being directed to the probable source of the trichinatus infection, it was ascertained that on December 21, four days before the patient was taken ill, two pigs and an ox had been slaughtered in the establishment of her master. Some smoked ham and sausage, prepared from the meat of one of the pigs, were fortunately obtained, and, on examination, proved to be full of trichinæ. The parasites had a shrunken appearance; otherwise unchanged; resumed a normal appearance on the addition of water, but showed no signs of vitality. It is particularly worthy of remark, that to the naked eye the ham appeared perfectly healthy. It is very likely that the deceased had partaken of some of the raw meat. The butcher of the establishment (butchers notoriously indulge in raw meat) had also been taken seriously ill a short time afterwards, and was confined to his bed for three weeks with severe muscular pains, his whole body being semi-paralytic, &c. The complaint was ascribed to rheumatism at the time, but Prof. Zenker correctly surmises that an immigration of trichinæ, not sufficiently extensive to prove fatal, may have been the cause

of the attack; and that capsulated trichinæ would very likely be discoverable in his muscle. Professor Virchow immediately commenced a series of feeding experiments with the pieces of human muscle forwarded to him by Prof. Zenker.

The following is a brief statement of the results, as published in the last number of *Virchow's Archiv.*:

Rabbits fed with trichinæ die in about a month under symptoms of general muscular paralysis.

The trichinæ, which, as long as they reside in the muscle, have no perfect sexual organs, become perfectly developed in the ileum. They are found free in the duodenum, about six hours after a piece of trichinatus muscle has been introduced into the stomach. In about a month they attain a length of four lines, and during that period not only mature eggs and sperm-cells, but numerous embryos, resembling small filariæ, are developed, which leave the maternal body through the anterior sexual orifice, are found in the mesenteric glands, and rapidly invade the whole muscular system, dwelling within the sarcolemma, and feeding upon the contractile substance of the muscular fibres. They are found in all the striated muscles of the body, with the exception of the heart (Zenker states that he found a few in the heart of a rabbit fed with trichinæ); liver, lungs, kidneys, &c., are free. In case the immigration is not sufficiently extensive to cause a fatal result, the trichinæ become enclosed in a capsule, which consists originally merely in a thickening of the sarcolemma, and this is the only condition in which they were formerly known. The trichina now shows the highest development it is able to attain within the muscle, into which it originally penetrated in an embryonic stage. It still retains its vitality, and quietly waits for an opportunity to find its way back into the intestinal canal, where, as Virchow's observations have shown, the two sexes attain the stage of puberty, and a wonderful productiveness, so pernicious to the individual who is unfortunate enough to harbor such terrible guests, is displayed.

The same applies to the non-capsulated trichinæ, which the enclosed preparations will make you acquainted with. The flesh of the rabbit had, to the naked eye, a perfectly normal appearance. The trichinæ are not near as numerous in this case as they were on former occasions. The intestinal mucus contained mature trichinæ of both sexes.

Professor Zenker made a feeding experiment with a piece of the ham. No trichinæ were found in the rabbit a week after. These experiments will, no doubt, be repeated, as the time elapsed was far too short to enable a definite conclusion to be formed.—*Medical Times and Gazette.*

Bibliographical Notices.

On the Diseases, Injuries and Malformations of the Rectum and Anus, with Remarks on Habitual Constipation. By T. J. ASHTON, Surgeon to the Blenheim Dispensary, &c. &c. From the Third and Enlarged English Edition. With Illustrations. Philadelphia: Blanchard & Lea. 8vo. Pp. 292. 1860.

MR. ASHTON'S work, since its first publication, has enjoyed a high reputation, and we are glad that it is now given to the American profession in so good a dress, and that, too, without being saddled by any jump-up-behinder with his notes and prolixities as editor. The scope of the work embraces all surgical affections of the anus, together with irritation and itching, as well as inflammation and excoriation of that vent. It goes up the rectum as far as cancer does, and takes a sweep around it extensive enough to include abscesses of that region. The last chapter is devoted to Habitual Constipation, which, furnishing the cause of so many other affections requiring surgical interference, comes very properly within the limits and purposes of the book. The wood-cut illustrations are sufficiently numerous for full elucidation of the subject, and are both original and well executed. As regards the importance of the subjects treated of in this work, the author well remarks that "in the whole range of surgical pathology, no class of diseases among civilized communities is so prevalent, causes more suffering, or induces so many varied and distressing sympathetic affections as those of the Rectum." To this we doubt not that every one who has a "*mens conscia recti*," and has arrived at that age of "fool or physician"—forty—will heartily respond.

In looking through the work, we find very few omissions to note, and but little to comment on, as differing from our own views on the subject. The style and method of the book commend themselves to us greatly—being clear and simple—giving nothing more than is necessary for a full exposition of the subject.

In speaking of enema syringes, Mr. Ashton urges, with great propriety, that the nozzle should be of some elastic substance, and not of ivory or metal, as is now the case. This is a necessity that has forced itself upon our attention, and we have made great efforts, though hitherto in vain, to meet it. The French make a nozzle in the same way they do bougies and catheters—of some woven foundation covered with boiled oil. The defect of these is, that they are too slender and apt to bend when meeting with any resistance, and they are affected, softened and dissolved by oil and many other things used as injections. They do admirably well, however, as long as they last, and are the only things that women should use in the later stages of pregnancy. We have tried in vain to have some made like these of vulcanized India-rubber, but the monopolists of that material are too well satisfied with their existing profits, and have not enough of bowels of compassion, if they have any others, to embark in a new article. One great defect in the syringes now used is the size and shape of the nozzles. They are too small and too pointed. The consequence is, they often cause intense pain by catching in the folds of the rectum, particularly when used in dysentery. They are also, as a general thing, too short, and do not carry the injection high enough, but deposit it in the most irritable part of the rectum, and below the *scybalæ* which it is intend-

ed to remove; the result is, that it is immediately ejected, not remaining long enough to effect the object for which it was introduced. The nozzle of an enema syringe, for an adult, should be capable of being introduced at least three inches. Its diameter should be a half inch, and the extremity should have a regular curve of a half sphere. The opening of the tube, also, should be well rounded, so as not to present any sharp edge to the delicate mucous membrane liable to be forced against it by spasm. Were these modifications made, we are confident that enemas would serve their purpose much more efficiently than they do now, and could be taken with half the inconvenience and annoyance that they are. With regard to the kind of forcing apparatus to be used to throw in the liquid, we agree with Mr. Ashton, that the simplest is the best. For most purposes nothing is better than the common India-rubber bottle, with a nozzle as described above. Where graduated and small quantities of fluid are to be used, as in anodyne and such like enemas, the cylinder and piston syringe has to be used, as with this alone can the quantity be gauged. A modification of the bottle that we have found immensely useful, is to have a tube of India-rubber a foot long, to one end of which is attached the nozzle—to the other, an ivory or metal socket. The bottle is provided with a mouth-piece that fits into the socket. The advantage of this arrangement is, that in cases where the patient is helpless from apoplexy or unwieldy form, ascites or pregnancy, the nozzle can be introduced without a change of position. We have given a large space to this portion of the subject, but we consider it a very important one. Enemas are highly useful remedies, and would be resorted to much oftener than they are, were their efficiency developed, the convenience of giving them increased, and the drawbacks to their use lessened as suggested above.

The first chapter is devoted to irritation and itching of the anus—"a very common affection," but one of the most distressing that we have had to deal with. The author points out derangement of the alimentary canal from ingesta of a highly-seasoned character, and of difficult digestion, but we have seen it proceed from the use of very simple articles of food, and such as were highly digestible and very beneficial to the patient in other respects. The chief proposition, however, our own experience teaches is true: viz., that the irritation and itching is caused, not by an external affection as a general thing, but by the irritative quality of the mucus secreted or collected just within the anus. In one of our patients it is always caused by drinking a single glass of malt liquor; in another, any other stimulating condiment than black or red pepper will bring it on. Discrimination should be made between those cases where it is a symptom of irritation within the anus, and those where it is caused directly by eczema. In the latter class it often comes on so suddenly and upon such little provocation, that the real state of the part is not suspected. It is evident that the treatment of each class should be different.

Chap. III. treats of excrescences around the anus, and in the treatment of these, we must note the author's dependence upon simple and gentle means. Indeed, these seem to be a characteristic of his treatment—all through the book.

The chapter on fissure of the anus, is an important and valuable one. As in other affections, the author begins in this with mild remedies before proceeding to the knife; and when this is used, he advises

merely incising the most superficial fibres of the muscle, remarking that it is surprising to find how very slight the incision need be.

Hæmorrhoidal affections are treated of at length—in fact, at too great length to permit us even to give an abstract of the chapter. The first thing in it, however, that strikes us, is that the word is spelled with an e instead of the diphthongæ. Our classical taste objects, but common sense accepts this as an improvement. After a very complete and comprehensive classification of these affections, and an admirable dissertation upon the cause of them, many cases are presented illustrative of the treatment. In this the author's rule still prevails—never to use a pile-driver if a common sledge will serve. The chapter on fistula is equally full and complete, and we regret we cannot give a summary of it. The extracts from Dionis about Louis XIV.'s fistula, contain a good lesson if people would only learn by it, but they will not.

Habitual constipation is the important subject of the twentieth and concluding chapter of the work. The effects of this affection are fully and fairly set forth, and as long and varied as the array is, no one of experience will say it is at all exaggerated. To one who has in himself realized many or any of these effects, that line of Sternhold and Hopkins's Psalmody—

“Blessed is the man whose bowels move,”

must appeal as strongly even as any of those that show him his latter end.

We again allude to the principles inculcated throughout the book, that in the treatment of the affections of the rectum, great patience, forbearance and perseverance are necessary, unless the practitioner, eschewing these and his patient's interest, resorts at once to extremes. And the good qualities just mentioned are not only necessary upon his part, but upon that of his patient. There are many who would rather have a knife stuck into them and be killed or cured within a week, than take a month to be cured with applications, enemata, &c. We had an instance of this within six months past, which will indicate what a physician has to expect. Two young gentlemen applied to us at the same time with prolapsus of the rectum. Both had become affected under the same circumstances—the one on the pampas of Buenos Ayres, the other on the prairies of the West. They were put upon the same treatment—poultices of rhatany and washes of tannin. Both did well. One, however, was impatient, and we lost him as a patient. The other got well, and so readily, that he thought very little had been the matter; so that we gained no reputation in the one case because the remedies were so simple—in the other, we lost it because we did not make a display of unnecessary knives and ligatures.

W. E. C.

SPECIALTIES OF THE PRESENT DAY NO NOVELTY.—The system of special practice, which is becoming so prevalent at the present time, existed amongst the ancient Egyptians, for Herodotus speaks of their having doctors for almost every part of the body, of which the eye and other organs are particularly mentioned. Our specialism would seem, then, to be merely a revival of an ancient though not enlightened practice.—*London Lancet*.

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, OCTOBER 4, 1860.

THE VALUE OF A DIPLOMA.—It will be seen, by the following extract from the *London Lancet* for September 1st, that the recklessness with which legislatures grant the power of conferring medical degrees, and the abuse of that power by some colleges, have at last been followed by results, which any fair-minded man could have foreseen from the outset.

British physicians have secured the passage of laws which will tend to elevate and purify the profession in that country. They have been called upon, however, to guard against invasion from this side of the water, and it is well that they should do so. Dr. Clarke, in his Valedictory Address before the medical graduates of Harvard University, in March last, says:—

“I have already intimated, that John Smith, or John Brown, or any other equally eminent man, may sell or give a diploma, and commit no legal offence. In fact, the country swarms with schools, colleges, and institutions of every name and grade, that manufacture degrees by the wholesale, and grant them for the asking. This may be an unwelcome statement, but it is nevertheless true. You may as well look the fact in the face, for you must accept it. Throughout the length and breadth of our land, and not only in large cities, the great centres of population and business, of education and science, but in small villages, and on mountain-tops, and in prairie wildernesses, there are schools of all sorts—Regular, I am sorry to say, as well as Irregular, Botanic, Homœopathic, Mesmeric, Eclectic, Spiritual, and I know not of what other names—that yearly bestow thousands of medical diplomas, upon as many grateful recipients. Mark you, I do not say that all these diplomas, so lavishly given away, are equally valuable; I only say that a diploma, without regard to its intrinsic merits, can be as easily got as sheepskin. It is no more difficult to get merely the title of Dr. than of Captain; and as many obtain the one as the other, and with as good a right.”

The *Lancet* is, therefore, perfectly justified in using the following language:—

“The difficulties which the Medical Council have encountered in resisting the claims of many uneducated and unintelligent persons holding American diplomas in Medicine and Surgery, have evoked the expression of sympathy and shame from the more respectable section of the medical profession across the Atlantic. They avow frankly that such diplomas are, in a large number of cases, wholly destitute of value. They afford no indication either of intelligence, study, skill, or good conduct. The graduate of an American chartered medical college, or the licentiate of a county or state medical society, may be an accomplished gentleman, or he may be an ignorant quack-salver, destitute of any claim to that title. It is right that this should be widely known, and that we should reflect upon the authentic avowal of a respected American journalist. An American medical contemporary states that the ease with which charters are now obtained from State Legislatures, for every non-descript association of men, whether for proper or improper purposes, has effectually broken down all safeguards to respectability, and thrown the field of medicine widely open to every species of adventurer. Charters are granted by State Legislatures to any and every body of men, for any and every conceivable purpose, without discretion or reserve. At nearly every session a batch of medical institutions are chartered, embracing every shade of quackery; and these, equally with the respectable and legitimate schools of medi-

cine, are entitled to confer the degree of M.D., and to represent themselves abroad as universities. It is difficult to imagine a more deplorable state of confusion than such reckless State patronage of ignorance and quackery must produce. Already it threatens to disorganize the educational system of the profession in America; for adventurers are thus freely enabled to purchase that academical status which only education can confer in other countries. The inevitable result must be, that since we have no means of distinguishing here, amongst the multitude of American colleges, those which apply the necessary tests to their members from those which admit the most unworthy persons, American diplomas will fall into discredit, and will be regarded as of no value. The remedy which it is proposed to apply is of a local character; and the American Medical Association taking cognizance of this state of things, it may result that the test of respectability which degrees fail to afford will be furnished by admission to that and other associated societies. It is obvious, however, that this voluntary test will have only a partial and local value. Meantime, it would appear that even the most respectable colleges are not quite free from taint. A protest has been forwarded to us, emanating from the Newark Medical Association, N. J., in reference to a diploma granted by the New York Medical College, which has always held a high place amongst the transatlantic educational institutions. From the protest and resolutions drawn up by this Association and assented to by others, it appears that the person to whom it was granted was a man who had for years painted and peddled window-shades, and subsequently became a dealer in quack pills and salve; that he was a grossly ignorant person; and "his examination, both by the faculty and the censors, must have been conducted in the most unjustifiably careless manner;" all which is respectfully submitted to the American Medical Association, with sundry suggestions "to remove the reproach cast upon the profession by the conferring of the diploma upon so unworthy a person, and prevent a repetition of similar grievances in all future time." The New York Medical College has refused to revoke the degree. The Medical Association is called upon to enforce its revocation, or to exclude the college from representation at its meetings. This disposition to invoke the influence of the Medical Association as a tribunal of appeal of the highest grade has now become a remarkable feature in the politics of American Medicine. It springs, undoubtedly, from the worthlessness and inefficiency of a large number of the chartered medical colleges, and is a strong practical comment upon the injurious effect of that reckless distribution of charters, of which the Medical Council is bound to take careful note in the interests of British Medicine."

MESSRS. EDITORS,—I saw in the JOURNAL of the 20th, a notice of a pair of large twins, weighing 17 lbs. and 5 ounces. This note is merely to say that we beat that easily, up here in New Hampshire. Last Sunday night (Sept. 23d), I safely delivered Mrs. M. of a boy weighing 8 3-4 lbs. and a girl weighing 10 lbs., making 18 3-4 lbs. of babies, all doing well. As in the case of your correspondent, *both* presented the vertex to the left acetabulum, which is very unusual in twin cases.

Yours truly,

GEO. H. HUBBARD.

Manchester, N. H., Sept. 27th, 1860.

HEBRA'S ATLAS OF SKIN DISEASES.—We see, by the *Lancet*, that the Council of the New Sydenham Society have finally decided on the issue of an Atlas of Illustrations of Skin Diseases, to be selected chiefly from those published by Hebra of Vienna. This will be an invaluable addition to the publications of that Society.

HUNTER MEMORIAL SUBSCRIPTION.—September 26th, 1860. Received from Dr. Bonney, for eleven subscribers from Hampshire County, \$11.00. Total amount received to date, from Massachusetts, exclusive of Essex North, Bristol North, Berkshire and Hampden Counties, from which no returns have been received, \$253.00.

SMOKING AND ITS EFFECTS.—The pupils of the Polytechnic School in Paris, have recently furnished some curious statistics bearing on tobacco. Dividing the

young gentlemen of that college into groups, the smokers and the non-smokers, it is shown that the smokers have proved themselves, in the various competitive examinations, far inferior to the others. Not only in the examinations on entering the school are the smokers in a lower rank, but in the various ordeals they have to pass through in a year, the average rank of the smokers had constantly fallen, and not inconsiderably, while the men that did not smoke enjoyed a cerebral atmosphere of the clearest kind. It would be interesting to pursue this kind of statistical inquiry in our public schools and universities. Perhaps smoking is, in many instances, not the cause, but the effect or indication of intellectual mediocrity. Is there any connection between smoke and German metaphysics?—*London Lancet*.

THE amount of rain which has fallen in Kansas City since the first of January, 1860, is 6.60 inches, a smaller amount than has fallen here, in the same length of time, in any year, since 1854, when there was absolutely no rain from June until October.—*Kansas City Medical and Surgical Review*, Sept.

DEATH OF PROF. HARRIS.—Prof. Chapin A. Harris, founder of the American Dental College, author of the *Dental Dictionary*, *American Journal of Dental Science*, and other standard professional works, died at Baltimore, Sept. 29th, at the age of 50 years.

TEMPERATURE OF THE ARTESIAN WELL AT COLUMBUS, O.—A few days since, a Walferdin's registering thermometer, completely enclosed in glass and iron tubes, containing water, was sunk by Professor Wormley to a depth of 2,575 feet, where it was allowed to remain for 25 hours; it was then lowered to the bottom of the well (2,575 feet), and there remained 40 minutes. Upon withdrawing the thermometer, it was found to have registered 88 deg. Fahrenheit, which may be considered the temperature of the well at that depth.—*Columbus Review*.

DR. H. G. DUERSON, of River View, Ky., reports, in the *Louisville Monthly Medical News*, three cases of diphtheria which have recently occurred in that place, one of which proved fatal after a few days' illness. Dr. D. rejects the idea of contagion in the propagation of this disease.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, OCTOBER 4th, 1860.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	52	31	83
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	48.7	42.6	91.3
Average corrected to increased population, . . . . .	..	..	101.8
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infan.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
20	7	3	2	0	0	1	1

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.090	Highest point of Thermometer,	75°
Highest point of Barometer,	30.368	Lowest point of Thermometer,	38°
Lowest point of Barometer,	29.650	General direction of Wind,	Westerly.
Mean Temperature,	56°.0	Whole am't of Rain in the week	0.703 in.

Deaths in Boston for the week ending Saturday noon, September 29th, 83. Males, 52—Females, 31.—Accident, 9—apoplexy, 2—abscess (of the brain), 1—disease of the bowels, 1—inflammation of the bowels, 1—congestion of the brain, 1—inflammation of the brain, 1—cancer (of the breast), 1—cholera infantum, 7—consumption, 20—convulsions, 1—croup, 2—cyanosis, 2—debility, 4—diarrhoea, 5—puerperal disease, 1—dropsy of the brain, 4—dysentery, 1—scarlet fever, 3—typhoid fever, 2—gastritis, 1—intemperance, 1—inflammation of the lungs, 2—marasmus, 1—paralysis, 3—disease of the rectum, 1—suffocated, 1—varicocele, 1—unknown, 3—whooping cough, 1.

Under 5 years, 39—between 5 and 20 years, 4—between 20 and 40 years, 21—between 40 and 60 years, 19—above 60 years, 9. Born in the United States, 52—Ireland, 23—other places, 8.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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No. 11.

TWO CASES OF LABOR IN THE SAME PATIENT.

PERSISTENCE OF THE HYMEN, OBSTINATE VOMITING, AND ATTEMPTS AT PRODUCING
ABORTION.

[Read before the Boston Society for Medical Observation, Sept. 17th, 1860, and communicated for the Boston
Medical and Surgical Journal.]

BY CHARLES E. BUCKINGHAM, M.D.

THE history of the two cases now presented is interesting, from the persistence of the hymen, through both labors; from the excessive vomiting, relieved, but not cured, by unsuccessful attempts to produce miscarriage; and from the power of the uterus to retain its contents, notwithstanding the apparent violence used.

Mrs. ———'s first labor was at the age of 22 years. The catamenial flow began, for the last time preceding it, on the 23d of December, 1857. Forty weeks from that date fell on the 28th of September, 1858. Her labor began on the 11th of that month. Through the whole of her pregnancy, she suffered from excessive neuralgia of the face, and sometimes in other parts of the body, requiring narcotics, and only relieved by very large doses of morphia. I am unable to say whether, during this pregnancy, there was much nausea. Her labor began with rupture of the membranes, at about 3, A.M. I saw her soon after 4, A.M. The position of the head, which was entering the pelvis, I could not make out, on account of the hymen, which was crescentic in form, covering the mouth of the vagina almost entirely; and the cervix uteri, which was quite long, with its os very small. The hymen was easily distended with the fingers, and remained unbroken, through the labor, gradually merging in the vaginal walls as the head came down. I may remark, that in this lady's sister I found an unbroken hymen some months after marriage, while examining on account of supposed uterine disease. At the first examination, the pains were every ten minutes. At 9½, A.M., they were as often as once in three minutes, and the cervix uteri was nearly obliterated. At

2, P.M., she ate dinner, although in severe pain. At 2½, P.M., the os uteri was not larger than a twenty-five-cent piece, and the pain was so severe that I etherized her. The vertex was in the left occipito-cotyloid position. Passed two fingers into the vagina, and drew forward the anterior lip of the os, which was thin, pressing it forwards and upwards. The vagina became more relaxed, and the os dilated easily. The pains, as has been usual in my experience, diminished from the commencement of etherization. At 5¼, P.M., the edges of the os had nearly disappeared, and she got tinct. fort. secal. cornut., ʒ i., c. spir. camphoræ, gtt. xxv. in iced water. About 7, P.M., the os uteri slipped back over the head. Pulse 84, and pains inefficient. At 7¾, P.M., head lying on the floor of the pelvis, but the contractions were powerless. The labor was completed at 8 o'clock, with the short forceps. The child was a female, weighing 8½ pounds. The placenta came away within fifteen minutes. Considerable flowing went on for the next hour. It was necessary to pass the catheter once on the following day, but she was perfectly comfortable on the 13th. Mrs. — was unable to nurse her child, for want of a sufficient supply of milk, and the efforts causing severe facial neuralgia. It was weaned, therefore, in December, within three months after birth.

Her menses came on before weaning, and continued with regularity till the 31st of January, 1859, occurring at least three times. On this date it began as usual, and lasted several days. This was her last menstruation. She never had had any irregularity of menstruation. She was in good health, after weaning the child, until the 8th of March. On the 6th of March, she rode over one hundred miles, and back again on the 8th. Was much fatigued, and had no appetite while away, although she felt perfectly well. On the 10th, she still felt fatigued, and had nausea after breakfast. At night, she had the excitement of a party, and during the evening, vomited. Had eaten nothing during the day. On the morning of the 11th, got a warm bath and hot drink. From this time till March 19th, at noon, was unable to retain any article upon the stomach. For three days and nights, she did not pass fifteen minutes without vomiting. Dr. John Ware saw her with me, at noon, on the 16th. For the previous forty-eight hours, the matter rejected was dark green. Twenty-four hours before his visit, she had taken nitrate of silver, but it only increased her distress. An hour before his visit, I had given her an enema of one half pint of beef-tea, two ounces of brown sherry wine, and a drachm of McMunn's elixir of opium. The possible necessity of producing abortion was talked about, but no definite conclusion concerning an operation was arrived at in concert, Dr. Ware doubting whether the certainty of success was sufficient to guarantee the undertaking. By his concurrence, the enema was repeated every four hours, but without relief to the nausea. The enemata were retained at will. The pulse increased somewhat in fulness.

At noon, on the 19th, I examined her *per vaginam*. The finger was admitted with difficulty, owing to the hymen, which covered at least one half the orifice. There was no tenderness, and there was no apparent abnormality about the parts within the vagina. A sponge tent was passed into the cavity of the cervix uteri. To my surprise, at night, I found that the nausea had ceased, and there was some pain in the loins and sacrum. Twenty hours after the tent was introduced, it was removed. There was blood upon it, and a little blood passed from the vagina afterwards. She took, in the four days following, a pint of decoction made from an ounce of cotton root bark, and four ounces of Tilden's fluid extract of the same drug. No flowing and no pain was produced by either of them.

The nausea was very slight, and perfectly endurable from this time till April 1st, when, without apparent cause, it recommenced with its former violence. She was evidently sinking from it, and remedies by the stomach and rectum availing nothing, I passed the uterine sound four inches, and swept it about. Blood followed immediately. I introduced a sponge tent into the cervix, which was expelled, at the end of twenty-four hours, with a small coagulum.

Like the first operation, this was followed by relief of the nausea, which was not excessive again till the 10th of July. There had been manifest increase of size, but no perceptible motion. Auscultation furnished no sign of pregnancy. The mental condition was that of extreme depression. The appetite was lost, and the dread of bringing a deformed child into the world, as a consequence of the operations, was so great, that there was reason to fear a serious effect upon her mind. Added to this, the nausea had again become excessive, and it alternated with facial neuralgia of the most severe character. On this evening, the probe was again introduced, and at least a gill of water came away at the time. During the operation, I felt the child's motion distinctly. Bearing down pains came on during the night, and continued at intervals for twenty-four hours, and then passed away, with all her troubles, except a little occasional nausea and neuralgia, which were always driven off by a tumbler of ale. Her mental condition improved at once, and no further operation was performed.

Just forty weeks from the beginning of her last menstruation, her second labor appeared to begin. This was on the morning of November 6th, 1859. Pain came on early, with occasional flowing of water, and lasted with regularity till ten at night, when she fell asleep.

On the 7th of November, she was up and dressed, had pain occasionally through the day, but rode four or five miles in the afternoon, and slept well all night.

Nov. 8th.—She was free from pain all day, but it began again

at about 11, P.M., and was sufficient to cause wakefulness through the night.

Nov. 9th.—The pain became severe, about 7, A.M., and expulsive. Soon after 8 o'clock, I found the head in the vagina, the occiput in advance, and at 8½, A.M., a perfect male child was born, weighing ten pounds. The placenta came away in ten minutes after the child. As in her previous labor, the hymen persisted till nearly the close of the second stage, when it gradually stretched away. There were no after pains, and on the succeeding morning the secretion of milk was abundant. From this time recovery went on rapidly.

The great power of the uterus to retain its contents, notwithstanding the violent attempts to relieve it, in addition to the severe physiological symptoms, is by no means new. There is a prevalent idea among women, that our profession is possessed of some certain, easy and safe means of procuring abortion. This idea I believe to be erroneous. That there are certain women who will abort in consequence of taking even moderate exercise, or hot teas, or repeated doses of cathartic mixed with ferruginous preparations, every one knows. These, I believe, from the statements of women themselves, are not very infrequent cases. The large majority of women, however, cannot be included among them. There is no medicine which will with certainty act in such manner, unless taken in poisonous doses. I have seen three cases of abortion from the use of the oil of tansy. Two of them were fatal, and the third was apparently at the point of death for several days, and did not recover for months. Women have taken ergot for weeks, with the only effect of producing pain in the back. The cotton root bark has become a very considerable article of sale within two or three years past, but I can learn of no case in which miscarriage has followed its use, except in those women who have previously miscarried from slight causes. Even the introduction of the sound is not infallible, nor is the injection of water into the cavity of the uterus, nor the alternate hot and cold douche, nor the galvanic battery absolutely certain. Twice within a few months, I have had women under my care who were the subjects of repeated operations with the sound from the third month, one of whom carried her child to the sixth month, and the other to the full term, notwithstanding a large quantity of water and blood followed its use in both cases. Within the same time, two women whom I attended operated upon themselves with a bit of whalebone, and miscarried in a few days. One of these told me that she was constantly in the habit of doing this operation upon herself, and I think she had done it as many as ten times. The immorality and the danger of the proceeding are but slight drawbacks to women who are determined not to have families, and the profession have not yet discovered the means of preventing

criminal abortion. Public lecturers "to ladies only" intimate that pregnancy need not be lengthened to its full term, and while they warn women against abortion, it is with such words that they encourage them to call upon them if they wish to be safe.

The subject of criminal abortion, however, is only incidental in this connection. My object was to show the difficulty of procuring abortion in a case in which it was justifiable, and in which not to attempt it would have been criminal. This was the first of the kind which came under my observation. A second, which occurred a few months later, and in which the symptoms were equally severe, at a later period, was happily terminated by the birth of a viable and healthy child. In this it was necessary to make a second attempt before labor was induced.

INFLUENCE OF THE SUN'S RAYS IN THE PRODUCTION OF
ORGANIC MATTER.

BY CHALES T. JACKSON, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

PLANTS alone possess the property of converting inorganic and mineral elements into organic substances, a power wholly denied to animals. They are enabled to effect this wonderful conversion through the influence of the solar rays, and chiefly by the decomposition of carbonic acid gas, the carbon being separated and combined with other elements, while the oxygen is given off and goes to form that portion of the atmosphere essential to the respiration of all animals. So rapid is the operation of the foliage of plants in abstracting carbon from carbonic acid of the air, that if we place a green and leafy bough of a tree in a glass globe, and place it in the sunshine, and then blow air through the globe, by means of a pair of bellows, the air, after passing over the foliage, will be found deprived of all its carbonic acid, and oxygen will have taken its place.—(Dumas.)

When we draw a breath of air into our lungs, and then exhale it, though it has been but a moment in the lungs, it will be found so charged with carbonic acid gas, as to extinguish a burning candle. This experiment is easily made by fixing a glass tube, inserted through a cork, into the top of a glass bell or receiver, open at the lower part, and placed in a vessel of water, and drawing the air from the receiver into the lungs, so that the water will rise and fill the vessel, and then breathing back the air into the receiver. Now if the cork is removed, and a lighted candle is lowered into the bell, it will be immediately extinguished. To show that foliage, in sun-light, will restore the respirable properties of the air, bend a leafy bough so that it shall pass under the edge of the bell and come in contact with the vitiated air, and expose the whole for a few minutes to sun-light. The carbonic acid will be

decomposed, and the carbon being removed, oxygen will be left in the bell, and the candle being again applied will burn freely.

Water is not decomposed by the respiration of fishes, but only the air, dissolved in the water, goes to support their respiration, the proportion of air dissolved in water being, on the average, about $2\frac{1}{2}$ per cent. of its bulk.

Aquatic plants depend upon the small quantity of carbonic acid that is dissolved in water for the production of their carbonaceous tissues and juices, and they, like other plants, decompose carbonic acid through the influence of the solar rays, and give out oxygen. Thus plants and fishes aid each other, the one producing the proper respirable food for the other. Without aquatic plants, water would soon be unable to sustain the respiration of fishes; and hence in natural lakes and rivers, aquatic vegetation maintains the water in its proper condition for the respiration of these animals. So in well-balanced aquaria, the proper proportions of animal and vegetable life may be kept up, and, provided there is sufficient sun-light, no mechanical admixture of air is needed; for the plants will re-produce the oxygen from the carbonic acid exhaled from the fishes' gills.

The atmosphere is an ocean of mingled gases, chiefly nitrogen and oxygen, with a small proportion of carbonic acid, the proportions being, nitrogen 76.9, oxygen 23 per cent. by weight, while that of carbonic acid varies from three to sixteen thousandths parts. Aqueous vapor, in variable proportions, is also dissolved in the air, the quantity depending on the temperature. Owing to the law of diffusion of gases, there is no separation of the heavier from the lighter by gravitation, and Gay Lussac found carbonic acid in the air he brought down in his balloon from a height of more than five miles, while Saussure ascertained its existence uniformly in the air over the highest peaks of the Alps. In large cities there is an accumulation of carbonic acid, owing to the want of free circulation of air, and the absence of an adequate amount of foliage for its removal; but it rarely accumulates in sufficient quantities to materially affect animal life. We live, then, at the bottom of a great atmospheric ocean, more than fifty miles deep.

The sun's rays penetrate readily through this atmosphere, and affect plants and animals on the earth's surface. From the dawn of creation—from the time when "God said let there be light, and there was light"—for myriads of ages, has the glorious orb of day been engaged in performing his beneficent work, and long before the creation of man the solar rays were busily employed in the preparation of the world for his advent.

Solar heat, absorbed by the wide-spreading ocean, at a time when scattered islands existed in the place of our present continents, warmed the waters, which so retained the heat as to give an almost tropical character to vegetation, even in climes far removed from the equator; and the small area of land above the surface of the

ocean radiated away into space but a small proportion of heat. Hence, perhaps, the much wider extension of the tropical flora in ancient times, when the great coal formations were produced, and the remains of tropical animals in regions too far removed from the equator to allow of their existence in those regions now.

Some geologists think that the equalization of temperature, by circulating warm water, is adequate to account even for the fossil flora and fauna of Melville's Island and of the Siberian Coast, and also of the Arctic regions of America. Brogniart supposes that there was originally a larger proportion of carbonic acid in the air than now exists, and that under those favorable conditions of greater warmth and a humid climate of the oceanic islands, a rank vegetation grew and rapidly abstracted carbon from this gas, and converted it into those plants of which coal was formed.

By this operation ages of sunshine became converted into fossilized light and heat; for submerged plants were changed into bituminous coals, which at present supply us with light and heat, both of which, in the form of coal, were stored up long anterior to the creation of man.

This wonderful provision of coal, the source of most of the light and heat we enjoy in our dwellings—this accumulated and almost incalculable source of power concentrated in the bowels of the earth, was prepared by that Being who created man, long before his coming, and thus the world was in the earliest ages fitted for the labors of civilized life, and the arts were provided with their most indispensable first materials, and the source of their greatest power.

Boston, October, 1860.

RESEARCHES UPON THE ERECTILE ORGANS OF THE FEMALE.

[Translated for the Bos. Med. and Surg. Journal, by WM. READ, M.D.—Concluded from p. 198.]

Erection.—Menstruation.—It is almost superfluous now to remark that a comprehension of the muscular system of the *mesoarium* (ovarian ligament) and the *mesometrium* (broad ligament) results in restoring completely to the type of erectile organs the corpus spongiosum of the uterus and the ovary. Indeed, we have seen that the vessels of the bulb of the ovary and the pampiniform plexus are everywhere interlaced and enveloped by the fibres emanating from the ligament of the ovary and the lumbar ligament; the proper tissue of the uterus encloses by its strong trabecules the canals of the corpus spongiosum, and the efferent sinuses (utero-ovarian plexus) are themselves interlaced by the antero-posterior intersections at the beginning of the great ligaments.

Stronger and more condensed just at the erectile bodies themselves, the muscular fibres become more rare and thinner at the plexus of discharge, an arrangement which exactly corresponds

with what we observe in the corpus spongiosum of the penis, and amidst the urethro-prostatic plexus.

In this way the absolute identity of their anatomical constitution, between the corpus spongiosum of the organs of copulation and those of fecundation, allows us upon this basis alone to conclude that they are identical in nature and function; and, if other proof is necessary, have we not, in default of demonstration impossible upon the *living*, the results of experiments on the dead body, which show the possibility of artificially producing erection in those organs which are screened from observation during life, in the same way as in those, the physiological metamorphoses of which, it is possible directly to determine?

With the erection of the corpus spongiosum of the uterus, the menstrual hæmorrhage is directly connected.* It is the uterine mucous membrane which furnishes the sanguineous flow, and it is well known that in those females who have died during menstruation, the body of the uterus is turgid, gorged with blood, and very large; it is at this time also, as I have remarked, that the artificial distension of the vessels determines, in the clearest manner, the changes of form, of volume, and of position, which are characteristic of erection. In a word, erection itself is the result of a muscular spasm which prevents the flow of blood back by the efferent sinuses. But we observe that at the *menstrual period*, the muscular apparatus, by which the corpus cavernosum of the uterus and the ovary are controlled, is in a state of spasmodic contraction, and, guided by the well-established coincidence of ovulation and menstruation, we are able to connect them with each other, and deduce from one single primary cause ovulation, erection of the uterus and menstruation.

At the time of the periodical ovulation of the *Graafian* vesicles, the adaptation of the Fallopian tube with the ovary precedes the discharge of the vesicle, and we have seen it last eight or ten days after the commencement of the heat.

The fimbriated extremity could not remain so long applied to the surface of the ovary, except in consequence of a state of spasmodic contraction in the muscular apparatus which holds it under its control. But the venous sinuses which traverse the meshes of the interlaced fibres at the umbilicus of the ovary, necessarily undergo there a partial compression, the immediate result of which is the distension and the erection of the bulb of the ovary. This accumulation of blood in the corpus spongiosum, and consequently in all the vessels of the gland, is not, doubtless, without influence

* I have found no real erectile systems except in the uterus of the human female, and it is in her alone that we observe a menstrual hæmorrhage. As to the females of the quadrumana (*baboons, dog-headed monkeys*), in whom we find a periodic flow of sanguineous mucus rather than a true hæmorrhage, perhaps we shall find in them some rudiment of that anatomical arrangement peculiar to the human female. I have not had any opportunity to make investigations upon this subject, but have seen that in the bitch, which also frequently shows a periodical flow of mucus more or less tinged with blood, the vascular richness of the parietes of the uterus is nothing more than an outline, very incomplete, of erectile tissue.

upon the evolution of the vesicle, and hastens the maturation of the ovule.

These modifications of the circulation of the ovary have a forced reaction upon that of the uterus; the communications of the uterine plexus with the ovarian veins are so large and so numerous, that the pampiniform plexus should evidently be considered as one of the channels of discharge, and the main one even, of the corpus spongiosum of the uterus. The result of this is that the obstacle to the flow of blood through the canals of this plexus should find in the body of the uterus a condition analogous to that which manifests itself at the bulb of the ovary. The erection of these organs is the forced consequence of the same cause.

It is, moreover, probable that at the period of ovulation the fibres of the mesometrium (broad ligament) which embrace all the veins of the uterine plexus, those which empty themselves into the hypogastric veins as well as those which communicate with the ovarian plexuses, are also under the influence of this excito-motory cause which determines the spasmodic contraction of the ovario-tubal fibres, and that all the channels of discharge of the uterus are in the most favorable conditions for the distension of the corpus spongiosum.

The principal cause of the erection being the same with that which determines the adaptation of the fimbriated extremity to the ovary, the two phenomena ought to have the same perceptible duration. The increased tension in the erectile formations, being prolonged, finishes by communicating itself, by degrees, to the vessels of the mucous membrane, and to the capillaries which ramify at its surface under a simple layer of epithelial cells; the desquamation of these cells, shortly leaves the thin membrane naked to the origin of the capillaries in the walls; these, too, yield at last, break, and the sanguineous exudation oozes from the surface of the mucous membrane, as long as the erection persists, and as long as the obstacle remains* to the free flow of blood by the veins.

* Circulation is not interrupted during erection. The arteries, which by their less volume escape the compression which the veins that surround them undergo, continue to convey the blood into the corpus spongiosum, which becomes distended, and the overplus of which only escapes by the channels of discharge, or by the accidental orifices of broken capillaries. According to Debrou, "Gangrene would be the inevitable consequence of an indefinite stasis of the blood. If erection continues a great while, many hours, it is very necessary that as much blood should flow out as enters, in order that gangrene should not supervene. But, if as much blood flows out as enters, in a prolonged erection, it is necessary to admit that it is the same in ordinary turgescence, *a proposition which is irreconcilable with all the theories of erection in consequence of a mechanical obstacle to the flow of venous blood.*" This objection is specious (it means little more than the theory of erection by the action of sexual hearts (Kobelt) escaped there, for this theory is false or exceedingly incomplete); but it is, it appears to me, very easy to refute. When the contraction of the muscular network determines, not complete occlusion, but diminution only of the calibre of the veins, the arteries freely throw into the areolar spaces a quantity of blood, at least equal to that of the ordinary circulation, and more considerable than that which actually flows out by the veins, *as long as the distension of the erectile organs lends itself to increase the capacity of the vascular reservoirs.* But as soon as the erection has reached its highest limits, the resistance of the parietes and the tension of the liquid in the interior of the corpus cavernosum, no longer permits the arteries to throw in a greater quantity of blood than is *exactly equal* to what the channels of discharge allow

If the erection of the ovary is not, like that of the uterus, accompanied with hæmorrhage, it is because the tunica albuginea and the stroma also of the ovary, much more resistant than the uterine mucous membrane, do not take on an exaggerated distension of their vessels. In certain abnormal cases, however, the ovarian erection may be the cause of hæmorrhage, and this, doubtless, is the most frequent, if not the sole origin of retro-uterine hæmatocele. Sometimes the hæmorrhage occurs in the peritoneum, and then, oftenest, has the ovary itself for its point of issue, which, I myself, as well as other observers, have seen englobed in the parietes of a cyst and communicating with the hæmorrhagic focus by a rent in the tunica albuginea.

It is probable enough that in such cases the blood proceeds from the vessels in the pedicle of one of the Graafian vesicles,* or rather from a recent corpus luteum, which rupture under the effort of the erectile tension, and offer to the blood, compressed and crowded into the corpus spongiosum, a way by which it escapes in a much more considerable quantity than would have taken place under the ordinary conditions of the circulation.

When the hæmorrhagic focus has its seat in the substance of the broad ligament, it produces during life an accident extremely frequent; and also, when we undertake, by the aid of an injection thrown in by the ovarian veins, to bring on artificial erection of the bulb of the ovary, a rupture of sinuses, having extremely thin walls, in the pampiniform plexus, or in the corpus spongiosum itself.

But what is very important from our point of view is, the well-established coincidence† of hæmorrhages from the ovary, with menstruation, with ovulation, and the spasmodic contraction which determines the application of the fimbriated extremity with the surface of the ovary.

The mechanism for producing these accidental hæmorrhages of the ovary (retro-uterine), is identical with that for the uterine menstrual hæmorrhage, an *accident* made *normal* in the human female.‡

to pass off. This partial circulation being thus spontaneously and forcibly regulated and restored to an equilibrium, continues in this new way as long as the erection lasts.

* In a case reported by Prost (*De l'hématocèle retro-uterine*. Theses de Paris, 1854), the origin, the time and the cause of the hæmorrhage also correspond with the subsequent evidence derived from an examination of the parts; I saw, says he, the tumor, formed partly by the ovary, and partly by the tube, very much dilated and *adherent* to the gland. It is evident that in this instance an attack of phlegmasia, following the hæmorrhage, had fixed the tube and the ovary in that position of adaptation in which they found themselves at the moment of the accident.

† M. Prof. Langier, in his lectures, and in a memoir communicated to the Academy of Sciences (v. Comptes Rendus, 1858), has applied himself particularly to demonstrate this coincidence.

‡ In order that the erection of the uterus should give rise to a hæmorrhage, certain conditions are necessary, some relating to its duration and others to the intensity of the erection, and consequently to the development also of the erectile formations. If the erection lasts only a short time, or is incomplete, the tension does not exceed the limit of resistance in the vascular walls, and there is no hæmorrhage. This is what often takes place at the commencement of puberty, when the erectile development of the vessels of the uterus not being complete, it is yet too far from the true vessels of the mucous membrane to influence them. Erection at that time manifests itself only by a sense of weight, of tension, and uterine colic (spasmodic muscular contractions), and sometimes a mucous exudation, more or less tinged with blood. This last phenomenon is observed in

We can now inquire how the evolution of a Graafian vesicle operates to produce the spasmodic contraction of the ovario-tubal muscles, the essential cause of all the phenomena which we have just passed in review.

The theory of the act of ovulation, is precisely the same with that of the act of parturition, of vomiting, of micturition, &c. &c., and is generally applicable to the normal play of all the muscular systems of organic life. In the case of parturition, when the ovum has attained the limit of its development, it acts upon the walls of the uterus like a veritable foreign body, and the irritation of the mucous membrane or the muscular envelope itself, transmitted to the ganglionic centres of the great sympathetic and the spinal marrow, is *reflected* back to the muscular system of the uterus and the muscles of the abdominal parietes, which concur in an energetic act for the expulsion of the child; and moreover, when the Graafian vesicle has arrived at a certain degree of development the distension of the true fibres of the *stroma* is the initial point of a *reflex irritation* which propagates itself throughout the muscular system of the internal organs of generation, to the mesoarium and the mesometrium.

The ovario-tubal fibres contract, draw near, and forcibly apply the fimbriated extremity upon the vesicle which protrudes, the veins, compressed in the meshes of the muscular net-work, force the blood to flow back and distend the corpus spongiosum, the vessels of the uterine mucous membrane yield, the menstrual flow establishes itself, and all these phenomena last as long as the stimulus continues to act, as long as the parietes of the vesicle resist the double effort of its contents which are increasing in size, and of the enveloping fibres which react against the distension;* whilst at last, the expulsion of the ovule restores quiet throughout the whole muscular apparatus, the course of the blood once more becomes free in the sinuses, the distension of the erectile bodies diminishes by degrees, and the hæmorrhage from the mucous membrane of the uterus arrests itself.† Ovi-position is completed by

some females of the mammalia, in whom erectile formations are wanting or altogether rudimentary.

We can in the directest manner observe all these peculiarities in the accidental erectile formations at the lower extremity of the rectum. In the beginning there is often nothing more than distension, and swelling of the hæmorrhoidal tumors without a flow of blood. Then the dilatation gradually reaching the capillaries of the mucous membrane, the spasm, which compresses the venous trunks which go in the thickness of the muscular coats, brings on the rupture of the superficial vessels, and after that time the hæmorrhoidal erection is regularly followed by hæmorrhage.

* In the scaly reptiles and birds, the muscular fibres of the mesometrium radiate upon the surface of each vesicle and actively concur in retracting it towards the pedicle, like the debiscence of the calix, the two hemispheres of which separate just at the stigma. The true fibres of the stroma doubtless play an analogous rôle in the mammalia, and their influence upon the expulsion of the ovule is much more probable, than that of the pretended suction exercised by the fimbriated extremity.

† The interesting observations of Bischoff tend to establish the fact that the liberation of the ovule takes place only at the end of the menstrual period. When impregnation takes place during this period and suddenly suppresses the bloody discharge, it results probably from the fact that the fecundating coitus, by over exciting the whole genital system, brings about a prompt rupture of an ovarian vesicle. It can also occur when any violent emotion suddenly suppresses the muscular contraction and the ovario-tubal erection; a collapse identical with what, under the same influence,

the migration of the ovum through the channel of the tube as far as the uterus, and from thence externally, if impregnation gives no signal for another series of phenomena.

We believe that the muscular and erectile system of the internal organs of generation, can be called into play, outside the menstrual period, by excitement which has its origin elsewhere than in the ovary.

Sexual excitement is often, doubtless, in the woman restricted to the erectile formations of the bulb and the clitoris; but it ought, when complete, when the venereal orgasm reaches its highest pitch of intensity, to over-ride these limits, and invade the essential organs of the generative function, in which the *special* voluptuous sensation is developed, which announces the accomplishment of the sexual act. *Kobelt*, who places the seat of all the generative, voluptuous sensations in the papillæ of the gland, was wrong in confounding with those sensations, more or less repeated and prolonged, which develope themselves in the mucous membrane of the organ in a passive state, this unique and instantaneous sensation, which in the man accompanies ejaculation, and in the woman manifests itself as the signal for the venereal orgasm.

Most profound, and all-pervading, it predominates over everything, embracing the whole organism, and presents a striking analogy in its characteristics, if not in its essence, to the gloomy sensations developed in the mental organization by the great sympathetic.

It appears, as far as we can judge by observation, very delicate in such a matter, that it is in the perinæal region, among the pelvic organs even, that the shock of the voluptuous paroxysm is felt, that its centre is among the vesiculæ seminales, and at the verumontanum (*uterus masculinus*, see my *Recherches sur le type des organs genitaux*, 1855), and doubtless in the woman, at the uterus, and that it announces the participation of these organs in the act which the organs of copulation have only prepared for.

If this be so, if the venereal orgasm in the woman has its seat in the internal organs of generation, we understand the rôle which those rich erectile formations ought to play, which so much surpass in their development those of the organs of copulation.

The antagonism evident from the development of the external and internal organs of generation in the two sexes, an antagonism which in the woman is everywhere progressive from the first, joined to the identity of the structure of the corpus cavernosum in both classes of organs, furnishes still another probability greatly in support of the idea that, under the same influences, similar phenomena would there develope themselves.

suddenly puts an end to erection in man. In this case the fimbriated extremity ceases to be applied to the ovary, the ovule falls into the peritoneal cavity, or, if it has not been fecundated, atrophies and disappears, as we have seen in the batrachians; if it has been impregnated, it gives rise to extra-uterine pregnancy.

Erection of the vascular formations of the uterus and the ovary as a consequence of sexual excitement, will explain how. The erection lasting too short a time in this case to exhaust the resistance of the capillaries, and cause a hæmorrhage, is capable, if repeated, of accelerating the return of menstruation, and increasing the duration and quantity of the discharge, as Haller, Burdaek, and Parent-Duchatelet have observed in lascivious women and prostitutes, in whom the menstrual flux, sometimes immoderate, could reproduce itself every fifteen days.

Facts observed by M. Coste, relating to the more frequent return of heat in animals in consequence of the cohabitation of the males with the females, and the possibility of impregnation in the human species outside the normal periods of ovulation, also find their explanation in the erection of the bulb of the ovary under the influence of sexual excitement, an erection accompanied by a mechanical congestion of the parenchyma, which would have the effect to determine the maturation of the ovum before the natural term.

The conclusions drawn from the investigations in this essay are :

1st, That in the human female, the body of the uterus presents the structure of an erectile organ, a true corpus spongiosum.

2d, That to the ovary also is annexed an erectile bulb.

3d, That in all classes of vertebrated animals, and particularly in all the mammalia, a special muscular apparatus embraces the oviduct and the ovary, and determines their adaptation.

4th, That the fibres of the ovario-tubal muscular membranes (*mesoarium* and *mesometrium*) have such relations with the corpus spongiosum and especially with their efferent sinuses, that, at the moment of contraction, the meshes of the network, in the midst of which the venous channels run, tightening themselves on all sides, the latter would necessarily find themselves compressed, and the flow of blood more or less obstructed.

5th, That this contraction of the ovario-tubal muscular apparatus lasts through the whole period of ovulation, and the obstacle to the flow of blood, and the erection of the corpus spongiosum of the uterus and the ovary, which is the result of it, have the same duration.

6th, That menstruation also, on the other hand, coinciding with ovulation, it is natural to consider that as the immediate consequence of the uterine erection; a true menstrual hæmorrhage, moreover, not showing itself unless in the place where this organ presents a structure really erectile.

7th, That if sexual excitement can, as appears probable, determine the erection of the uterus and the ovary, it is easy to account for its influence in shortening the periods of menstruation and ovulation.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

SEPT. 24th.—*Spina Bifida*. Dr. COALE related a case of spina bifida, exhibiting the specimen. The child was a male, nine weeks old, born of healthy parents who had previously had two children, both now living. There was nothing peculiar in the condition of the mother while carrying the child. At its birth, it had a tumor at the lower part of the lumbar region, of about the size of a nutmeg. At seven and a half weeks, this had more than doubled in size. It was translucent, the walls apparently so attenuated as to make it seem ready to burst upon the slightest pressure. At nine weeks it was double the size it was ten days before, being then two and a half inches across, and projecting an inch and a half. The surface was now ulcerated, and discharging an ichorous fluid. The attenuation of the walls had still further increased, and they seemed composed of nothing but the skin. The case had been shown to a noted quack of extensive practice, who pronounced it at once a mother's mark, caused by her longing after tomatoes, and taking that form in consequence. Pressure upon the tumor, made with as much force as seemed justified, considering the extreme delicacy of its walls, produced no effect on the child, unless to make it a little restive. From infancy there had never been either sensation or motion in the legs, and nutrition seemed to be very imperfect, though the mother had a good supply of milk. The bowels were too free, and the dejections seemed frequently crude and badly digested. The parents were very desirous that something should be done; but upon a thorough examination of the case, Dr. C. determined that nothing was advisable, and that death was imminent. This last prediction was correct. The following day the tumor burst. This was followed by some contraction of the flexors of the anus, but otherwise no apparent change took place in the condition of the child, which died three days afterwards, of exhaustion. On examination, the tumor was found to proceed from an opening caused by an absence of the posterior spinous processes of the last four lumbar vertebræ. The walls of the whole cavity, both spinal and integumental, were lined with pus; the cauda equina was intensely red, and covered with pus. The communication between the cavity of the tumor and those of the brain was very free, and since the bursting of the walls a deep depression existed at the anterior fontanelle.

As a simple case of spina bifida, this would scarce be worth reporting, but it seems to present a peculiarity in the slowness, or rather entire absence of any symptoms indicating cerebral disturbance after the bursting of the tumor and the great discharge of fluid that took place from it. In other cases, pressure upon the tumor, when the communication was perfect, produced coma and stertor; in this, however, the pressure, owing to a fear of rupturing the walls, might not have been sufficient for this. In other cases, the sudden discharge of the fluid has caused convulsions, followed by syncope and death; in this, there was no visible effect, nor did there seem to be any symptom commensurate with the high degree of inflammation existing in the walls of the tumor and the theca of the marrow.

Some thoughts upon the case have been suggested by a conversa-

tion on this subject at the meeting of the Society of Surgery of Paris, held last July. A case was exhibited of a child, three months old, in which the tumor was of the size of an orange, and the walls very thick. Chassaignac gave it as his opinion that as there was no paralysis, and as the walls of the tumor were thick, there should be no interference; but he goes on to say, if the walls were thin and threatened with inflammation, or likely to burst, he would advise puncture. Now it was the very thinness of the walls, and the great liability to inflammation that would seem to militate most strongly against the success of an operation in the present case. Had the walls been thick, they might have been punctured obliquely, and the exit of fluid then regulated. But besides the fear of the consequences of emptying the fluid at once, the danger of inflammation from the admission of air seemed imminent—in fact, unavoidable. Again, the paralysis of the nerves, both of sensation and of motion, seemed to afford but little hope for the comfort of the child's existence, and seemed still further to make the operation undesirable.

In looking in various directions for a summary of the state of medical science with regard to spina bifida, none could be found. Particular surgeons have given their views in monographs, and many cases appear scattered through the journals, but there is no collected view of the malformation and of the means used to cure it, and the success of such means. It appears that a very small number of cases get well of themselves, by the thickening of the walls of the tumor, and gradual obliteration, by this means, of the cavity of the sac. Pressure has been used to favor this. Dubourg operated on it by contracting the soft part over the opening into the vertebral column (*Gaz. Méd. de Paris*, 1841). Behrend cured it in an infant seven weeks old, by applications of collodion (*Arch. Gén.*, Aug., 1859). Stephens (in the *N. Y. Jour. of Med. and Collat. Sciences*, No. 2) gives a case treated successfully by pressure. We saw this tried, many years ago, by means of a needle and a capillary trocar, and with a prospect of success; but the child died with acute pneumonia. In the case we have just related, none of these means seemed advisable, even if possible.

Dr. H. J. BIGELOW had formerly reported to the Society four cases of operation in this disease, of which two were successful. One was by simple acupuncture; result, fatal from evacuation of the fluid and convulsions. Three were treated by ligature, of which two recovered. In one of the last cases, a child 3 years old, there was a large tumor in the back of the neck; a ligature was applied after puncture. The patient had convulsions, but recovered in three weeks. In the other case, the child being under a year old, he wound a string tightly around the base of the tumor, so as to form a pedicle, and then punctured the distal side of the tumor. Convulsions followed, but the child recovered. In the fourth case, the same treatment was followed, but the child died. Dr. B. remarked that, as a general rule, the subjects of this disease are so permanently disabled by prominence of the tumor and by the effects of the lesion, that an operation is to be advised, even though dangerous. Continuous evacuation of the fluid in the spinal column is followed by convulsions and death. Hence, since his first operation, he had tied the base of the tumor for an inch with a spirally wound cord, to produce adhesion of the cavity, before the separation of the base, and with the above results, viz., two recoveries and one death. The two former children were doing well, at

least a year after operation, exhibiting little protrusion. Dr. B. did not think that any amelioration could be looked for, of paralytic symptoms when they exist; but the removal of the tumor was much to gain, especially if large or thin.

Dr. B. inquired of Dr. STORER the result of a case he had seen in consultation with him, where no operation was done. Dr. S. replied that the child lived about a year and a half, being very difficult to move or handle, and then died from a pin-like aperture of the sac, inducing dribbling of fluid, convulsions and death, in thirty-six hours.

Dr. WARREN had seen three or four cases within the past five or six months. In one, that of a vigorous child, with a large tumor, he applied a ligature tightly around the base, avoiding the use of the needle, in order not to puncture the tumor. After the ligature was in place, it was suggested that a second should be applied, or rolled around or beyond the other, so as further to reduce its bulk. The second ligature had this effect, but both came off in the struggles of the child some five or six hours after application. No bad effect resulted, but the mother declined further operation. In another case, the patient, a girl 13 years old, had a club-foot, which he amputated on account of caries of the bones, and extensive ulceration, caused by pressure in walking. Learning that she had incontinence of urine and fæces, Dr. W., on investigation, discovered that there was a large tumor on the lower part of the back, connected with a spina bifida; the incontinence was evidently owing to the interruption of nervous influence. The skin about the external genitals was thickened and hardened like leather, from the constant flow of irritating matters over it. Some years ago he had met with a precisely similar case; that of a young lady, 20 years old, in which he performed amputation for the same reasons as in the above case. In the latter case, the patient had no inconvenience from the spina bifida, unless the tumor was accidentally struck, when temporary paralysis occurred. The ulceration and caries were undoubtedly caused by a want of sufficient nervous power in the limb to enable it to resist pressure. Dr. W. thought the operation ought to be attempted if it offered one chance of success out of twenty, the disease or malformation caused so much inconvenience and suffering.

SEPT. 24th.—*Pneumothorax, with effusion; the Physical Signs being strongly marked, and the Symptoms comparatively but little so.*—Dr. JACKSON reported the case, which had recently been under his care at the Hospital, for a few days.

The patient was a shoemaker, 21 years of age, and previously healthy, but had been rather unwell during the spring of 1859, though without any local symptoms, so far as reported. In May, from which time he dated his sickness, he attempted to lift a barrel of sand, felt soreness in the chest, and on the following morning raised half an ounce of blood; and in twenty-four hours he raised twenty ounces more. Prostration followed, with cough, and he did no work from that time, though he was not confined to the house. In September he resumed work, feeling better, and so continued till January or February, when he had some pain in the chest, which he thinks may have been about the lower half of the sternum. A week afterwards he again gave up work; the pain at once left him, and it did not return until a month before admission. In May he commenced the use of whiskey, and continued it from that time, feeling sure that he was

much benefited by its use, locally and generally; the cough, which had been considerable until then, mostly subsiding. The expectoration was never much; and there never was any lancinating pain about the chest. Moderate dyspnoea, with the pain, for a month before entrance; and never at any time strongly marked during sickness. He had done no work since last winter, and had never been confined to bed by sickness; no marked hectic.

On admission, his general aspect was delicate, but his countenance easy. On examination of the left chest, there was throughout a marked prominence with fulness of the intercostal spaces; the heart beating in the region of the right mamma. In whatever position he was placed, whether erect, upon his back, or upon his hands and knees, the depending parts were perfectly flat on percussion, the resonance elsewhere being as much or more than upon the right side; and it was shown on percussion that the diseased cavity extended as far as the cartilages of the ribs upon the right side inclusive. When the patient shook himself, the swashing of the fluid within the chest was distinctly audible at a distance of thirty feet, and would have been heard still further off, if the room had been longer; this sound was first heard by patient himself, last July, and the enlargement of the side was first noticed in August. Respiratory sound sufficiently distinct posteriorly over upper lobe, and to some extent over lower; probably transmitted, though it seemed not to be so; below clavicle, a distant amphoric sound was heard. Elsewhere, over this side, there was no sound of respiration; but a very distinct metallic resonance on forced inspiration. Metallic resonance of voice also; not constant, but strongly marked, and about as much so where there was flatness, as where there was resonance on percussion. Over right side of chest nothing unusual, excepting what has been above stated, and a supplementary respiration. Nowhere any râle in the chest.

Dr. J supposed that a tubercular deposit had taken place in the lungs, in this case, in the spring of 1859; and that a perforation into the pleural cavity must have occurred last January or February. He remarked upon the very interesting clinical fact, that the perforation should have been accompanied with so little pain, and have been followed by so few urgent symptoms of any kind; but that it was another of the many cases that have been observed here, in which the symptoms did not accord with the descriptions as usually given by authors.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, OCTOBER 11, 1860.

ADJOURNED MEETING OF THE MASSACHUSETTS MEDICAL SOCIETY.—A meeting of the Councillors of the Massachusetts Medical Society was holden on Wednesday, October 3d, for the transaction of unfinished business; after which the Society met, agreeably to adjournment, and was called to order by Dr. Metcalf, of Mendon. Between 40 and 50 members were present, and several important resolutions were offered for consideration. The first in order that we have space to mention,

was a resolution suggested by Dr. JAMES JACKSON, for the reconsideration of the vote passed at the Annual Meeting, by which the Society disclaimed all responsibility for the sentiments contained in the Annual Address. The following remarks of Dr. Jackson, in proposing this resolution, and which we are glad to be able to give in full, were read by Dr. Gould:—

MR. PRESIDENT,—As I fear that I cannot make my voice heard, I beg leave to present a motion in writing, and to ask a friend to *read* what I should be glad to *say*. Before stating the motion, it is necessary for me to make some preliminary remarks.

Sir, it appears, by the printed copy of the proceedings at our meeting on the 30th of May last, of which this is an adjournment, that a resolution was passed in reference to the discourse which had been delivered on the preceding day, in the following words:—"Resolved, That the Society disclaims all responsibility for the sentiments contained in this Annual Address."

Upon this proceeding I remark, first, that it has been an established custom of this Society for a period, as I believe, of fifty years or more, to abstain from any vote respecting the annual discourse. The rule has been that the orator shall deliver a copy of the discourse to the Recording Secretary, to be placed on his files; and the uniform practice has been to print the discourse, whatever may have been its contents. It has not been the practice of the Society to pass a vote of approbation, or of disapprobation of the doctrines or opinions contained in the discourse;* and the Society has not been regarded as responsible for any such doctrines or opinions. In the present instance, the Society, by its vote, disavows any responsibility for the discourse. In so doing it seems to me to go out of its way; it deviates from its accustomed practice, and thereby throws an insult on one of its fellows, whom it had invited to read the annual discourse.

Secondly, although, as a matter of form, this resolution appears to be an act of the Society, I think it cannot be regarded as being *virtually* such an act. I presume that the number of Fellows who attended the Annual Meeting in May, and listened to the discourse, was not less than three hundred; and I believe the whole number of the Fellows is about nine hundred. Now it seems by the record that the number of those who voted on the occasion was less than twenty, and the majority of votes in favor of the resolution was very small. But if you compare the number of the voters on this occasion with the whole number of our Fellows, you find it exceedingly small. If the vote had operated to invest one thousand dollars of the funds of the Society in any manner, especially in any peculiar manner, I think it would have occurred to the Fellows present at the meeting that it was not wise to take such a measure, when their number was so small. But was it not much more important to be cautious in passing a vote of censure on one of its Fellows, than in disposing, in any way, of a thousand dollars? I will not dwell upon the character of the vote. I have not in my mind the names of the gentlemen who were in favor of passing it. I believe that they acted hastily. I believe that they thought some reproach had been thrown on the members of our profession, which was undeserved, and which it became them to resent—the more, perhaps, because they thought that this reproach came from a man highly distinguished in the literary and scientific world. If the matter was so grave, in the mind of any one, as to demand this public expression of disapprobation on the part of the Society, surely it ought to have been left for the Society at a full meeting, and, after due consideration, to give its deliberate decision on the subject. Sir, I do not wish to find fault with any one. I feel persuaded that this vote was taken hastily, and under the influence of some excitement. To support this statement I might, among other things, show that the objection made to the discourse was, probably, owing to a few sentences in it, and that the qualifying sentences in other parts of it were not brought to mind. As the discourse was to be published, it surely would have been discreet to have waited until its contents could have been carefully perused and duly weighed, be-

* Since this was written, I have learnt that of late years the Society has passed some complimentary vote after the delivery of the annual discourse. It was not so formerly.

fore expressing an opinion upon it, directly or indirectly. I shall be surprised if it should appear that any large number of the Fellows would now be willing to support the opinion conveyed in the vote under consideration. But, Sir, I beg it may be considered what the consequences may, nay, I should say, must be, if we do not recall the vote. In that case, at all future annual meetings, instead of hurrying off from an entertaining and instructive discourse to the annual festival of another description, it will be proper for the Society to continue its session, to wait to hear whether any gentleman thinks that anything unsound or unjustifiable has been said by the orator. If, then, any such allegation be brought forward, the Society should on the spot, or at an adjourned meeting, go into a consideration and discussion on the subject; and this might require debates for a week, before a decision could be had. Sir, is it not better to leave the subject, whatever it may be, for observation, praise, or dispraise, in some other mode; some mode not involving the inconveniences of calling physicians from all parts of the Commonwealth to attend a temporary meeting. It is partly from a regard to the inconveniences of such a course that I do not advert now to passages in the discourse at our last Annual Meeting, which I suppose to have been offensive to some of our brethren. It is not that those passages, and the opinions they contain, are indefensible; but that we cannot well give the time at any of our meetings to go into a discussion of them. If the orator has made statements which seemed to any one incorrect, or drew inferences which were illogical, or unjustifiable, the best opposition to him could be made through the press. If any error could be pointed out to him, I doubt not that he would hasten to acknowledge it. If, in his desire to bring truth to light, such truth as is known to the most thoughtful and strongest minds; if with these views he made his statements, or his inferences, in the glowing language which always flows from the lips of some gifted man, if he availed himself in a public *oration*, not in a sober *essay*—if he availed himself of a poet's license, let us take and swallow the wholesome morsels which he offers to us, and not cry out that they are too hot, and that they burn our mouths.

Mr. President, I hope that my exordium has not been too tedious; and I would now urge that the resolution, passed at the meeting of which this is an adjournment, and which has now been read, be reconsidered.

If, Sir, the vote on this motion should be in the affirmative, I shall ask leave to suggest that the resolution be revoked or disavowed. And, Sir, I shall hope that the vote on this motion may be taken without discussion. I think that some evil, some warm feelings may be excited by a discussion, and that probably every one is as well prepared to vote now, as he would be after a discussion. For my own part, if I have not already said so with sufficient distinctness, I beg to say now, that I believe the gentlemen, who were in favor of the vote I have referred to, were not actuated by any improper motive; that from a partial misunderstanding of the discourse their feelings were excited, and that they acted in haste to maintain what they regarded as the honor of the profession.

Finally, let me say that I do not ask that the motion which I suggest be received and adopted by the Society, on account of the orator, or for his benefit in any way; but for the benefit of the Society. If the Society has taken a step in the wrong direction hastily, it will redound to its honor to retrace that step.

On the conclusion of Dr. Jackson's remarks, and after much discussion, a member, who had voted in the affirmative on the passage of the former vote, in order to bring the question legitimately before this meeting, now moved its reconsideration, which was carried.

It was afterwards, on motion of Dr. Bowditch, voted that the Massachusetts Medical Society hereby declares that it does not consider itself as having endorsed or censured the opinions advanced in former published addresses; nor will it hold itself responsible for any opinions or sentiments advanced in any future addresses. Also that the Publishing Committee be directed to print a statement to this effect at the commencement of each Annual Address that may hereafter be published.

After the transaction of some other important business, to which we have not the space to allude, the Society adjourned to meet on the first Wednesday of November, at 10 o'clock, A.M.

A pleasing incident at this meeting was the presentation to the Society, by Dr. John Homans, of a full length photographic portrait of the venerable Dr. James Jackson, which will hereafter adorn its rooms.

DEATH FROM CHLOROFORM.—Dr. W. Krause, of Cincinnati, Ohio, in the *Lancet and Observer* of that city, reports a case of death from the use of chloroform, on the 25th of September, which was administered as an anæsthetic during the operation for artificial pupil. It was inhaled, while in the recumbent posture, for half an hour before the operation, and one and a half ounces taken without producing the usual ecstatic symptoms. The patient, whose general health had been good, was restless during the operation, which lasted about five minutes, and his breathing began to be stertorous. As the operator was about proceeding to let out the blood which had collected in the anterior chamber, a sudden paleness of the anterior ciliary vessels was noticed, and the patient ceased to respire. The usual means of resuscitation were resorted to, including Marshall Hall's "ready method," and were continued for an hour and a quarter, when pulsation wholly stopped.

MORTALITY OF PROVIDENCE, R. I.—There were 94 deaths in Providence during the month of September. Of these, 84 were of American and 10 of foreign nativity; 50 of American and 44 of foreign parentage; 43 males, 51 females; 92 whites, 2 colored; 41 on the east side, 50 on the west side, and 3 in public institutions. The number of deaths in September was six less than in the preceding month, two more than in September, 1859, and considerably less than the average as corrected for the increase of population. The population of the city, by the census of the present year, is 50,669.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, OCTOBER 6th, 1860.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	39	37	76
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	41.6	39.6	81.2
Average corrected to increased population, . . . . .	..	..	90.6
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infan.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
9	3	3	2	1	0	2	3

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.236	Highest point of Thermometer,	66°
Highest point of Barometer,	30.540	Lowest point of Thermometer,	33°
Lowest point of Barometer,	29.900	General direction of Wind,	East.
Mean Temperature,	49°.07	Whole am't of Rain in the week . . . . .	..

COMMUNICATIONS RECEIVED.—Case of Compound and Comminuted Fracture of the Humerus, followed by Pusæarthrosis.

BOOKS.—Transactions of the Medical Society of the State of Pennsylvania at its Twelfth Annual Meeting.

Deaths in Boston for the week ending Saturday noon, October 6th, 76. Males, 39—Females, 37.—Anæmia, 1—apoplexy, 1—disease of the bowels, 1—disease of the brain, 1—inflammation of the brain, 1—bronchitis, 2—cancer (of the stomach), 1—cholera infantum, 3—consumption, 9—convulsions, 5—croup, 3—debility, 2—diarrhoea, 2—diphtheria, 2—dropsy, 1—dropsy of the brain, 5—drowned, 1—dysentery, 2—scarlet fever, 2—typhoid fever, 3—gastritis, 1—disease of the heart, 1—hepatitis, 1—disease of the kidneys, 1—disease of the knee, 1—congestion of the lungs, 2—gangrene of the lungs, 1—inflammation of the lungs, 2—marasmus, 1—measles, 1—old age, 2—paralysis, 1—premature birth, 1—scrofula, 2—disease of the stomach, 1—tabes mesenterica, 1—teething, 2—thrush, 1—ulcer of the stomach, 1—varicocele, 1—whooping cough, 3.

Under 5 years, 35—between 5 and 20 years, 6—between 20 and 40 years, 14—between 40 and 60 years, 10—above 60 years, 11. Born in the United States, 43—Ireland, 24—other places, 4.

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THURSDAY, OCTOBER 18, 1860.

No. 12.

A CASE OF COMPOUND AND COMMINUTED FRACTURE OF THE
HUMERUS, FOLLOWED BY PSEUDARTHROSIS—RESECTION
—USE OF THE SILVER WIRE—UNION.

BY HENRY CLARKE, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

I WAS called, July 8th, 1859, to visit Michael Hart, a stout, healthy Irishman, who had broken his left arm while employed as a brakeman on the Norwich and Worcester Railroad. He stated that a car-wheel had passed over it. However this may have been, I found a compound and finely comminuted fracture of the left humerus, at about the juncture of the lower with the upper two thirds. The fragments slipped about upon the least movement being made, and there was a fistulous opening through the soft parts. The muscles were badly bruised, so as to seem quite broken down, and the hæmorrhage was considerable, but the brachial artery seemed to be uninjured.

It being decided to make the attempt to save the arm, it was put into splints, and cold water applied. Severe inflammation followed, and some sloughing. Suppuration was very profuse for about three weeks, during which time several small bits of bone were extracted. At the end of six weeks, pus had ceased to flow from the fistulous opening, and the wound was so nearly closed that the arm was put into splints, confined by starched bandages. Up to this time the patient had been kept confined to his bed, in order to prevent any unnecessary movement of the fragments. The fracture was not examined again for a month, when it was found that there was no bony union. The dressings were re-applied and allowed to remain another month, but at the end of this time the arm could be easily bent at the point of fracture. On careful manipulation, the two or three small pieces of bone which lay between the lower and upper portions of the humerus seemed to be

consolidated with the former, while between them and the latter, that is, the upper fragment, there was only a ligamentous union.

About three weeks later, there having been no appreciable improvement, I endeavored to excite some inflammation at the seat of fracture, with the view of causing the interposing fibrous structure to take on ossification. This was done by irritating applications to the skin, and by rubbing the ends of the bones vigorously together. This operation caused severe pain, and was followed by considerable swelling. In two or three days the limb was dressed as before. Soon after this, the friends of the patient sent for a somewhat famous "bone-setter," and during the next two months I was not responsible for the case. This Dr. S—— applied some plasters about the fracture, and an elbow-splint of his own manufacture. During this time there was no alteration.

Dec. 31st.—I introduced a seton between the ends of the bone, using for this purpose a skein of white sewing silk. This was removed at the end of eight days, when suppuration was fully established. Pus did not cease to escape for nearly five weeks, and several abscesses were formed along the inside of the arm, which required free opening, and caused much pain and trouble. The constitutional disturbance was severe. Four months after the introduction of the seton, the false joint still remained as before.

In consultation with Drs. Martin and Sargent, the operation of resection was advised, which was performed, on the 5th of May, 1860, in the following manner. The patient being etherized, a longitudinal incision was made along the outside of the arm, about four inches in length, and the integuments were dissected up a little from the ligamentous union. The cartilaginous formation, which was very dense, was divided with a blunt-pointed bistoury. The end of the lower fragment was now turned out, and after dissecting up the periosteum for about half an inch, a very thin piece was sawed from it. The upper end was served in the same manner. A butcher's saw was used, which was so arranged as to cut on the inner instead of the outer edge, and consequently sawed upwards. This arrangement of the saw facilitated this step in the operation very much. The ends were next perforated to the medullary canal, and a stout silver wire was passed through them. The bony surfaces were placed in apposition, the portions of periosteum which had been turned back brought down, and the wire was twisted. It only remained now to bring the integuments together, with sutures and adhesive plaster, and to dress the limb as for a compound fracture. There had been but very little loss of blood, and in a few hours after the operation, the patient expressed himself as feeling quite comfortable.

May 9th, four days later, the wound had united by first intention, except just about the protruding wire, where there was a little discharge of pus. This discharge was quite abundant for a week or more, when it began to diminish, and in three weeks it had

nearly ceased. The constitutional disturbance during this time was much less than after the seton.

The patient was kept in bed eight weeks, the arm laid upon a pillow, and confined by splints. The elbow, by a little arrangement, was kept constantly drawn towards the shoulder, in order to keep the ends of the bone in as close apposition as possible. There was, as yet, no bony union, and the patient was allowed to sit up, the arm being supported in an elbow splint.

August 1st, about twelve weeks after the operation, the callus seemed to be well formed, but the arm could easily be bent a little. The splints were replaced and not removed again for three weeks longer, when, after our hope of success from this operation had begun to wane, bony union was found to have taken place, and the man could raise his arm. The patient was now requested to rub the arm daily with stimulating liniments, but to keep it in a sling two or three weeks longer. The wire was not removed till the 22d of September. The man at this time, Oct. 1st, is rapidly regaining the use of his arm.

Worcester, October 1st, 1860.

FOREIGN BODY IN THE APPENDIX CÆCI—DEATH.

By F. A. HOWE, M.D., NEWBURYPORT.

[Communicated for the Boston Medical and Surgical Journal.]

THE subject was a fine little boy, aged four years and one month. He had always been a robust and healthy child till late in the spring or early in the present summer, at which time a loss of appetite, diminution of strength and emaciation excited the attention of friends, and considerable comment. Still these symptoms were not grave enough to take him from his play or restrict his exercise out of doors.

During the month before his death, he was subject to occasional attacks of nausea and vomiting. He was particularly sensitive "when not carefully handled" while being bathed, and complained of "its hurting" when any accidental pressure was made upon the abdomen. (This latter fact was, however, recalled to mind by his friends after his death.)

Returning home from a visit in the country, a few days previous to his death, he was apparently greatly improved. On Friday, July 27th, 1860, at about 4 o'clock, P.M., he accidentally swallowed a cent (of the new coinage). By my advice, he was allowed to eat a full meal, which was followed by a dose of castor oil. The cent made its appearance in the stool the following afternoon, the child complaining of some pain at the time of its passage. That evening (Saturday) he eat his supper as usual.

July 29th, Sunday, A.M.—I was called to him, and found him with marked febrile symptoms: flushed face—thirst—dry tongue,

slightly coated—frequent, but not a hard pulse, together with slight nausea. Had had several stools during the night, small and slimy, with slight tenesmus. Abdomen hard and tense, and tender on pressure, especially over the cæcum; but he complained of no pain. As he had already taken oil, which had operated freely, I gave him two grains of Dover's powder, to be repeated if the symptoms continued. Ordered, also, stimulating foot-bath, and spirits of nitrous ether, with camphor.

7, P.M.—Nausea increased. Had vomited frequently during the day, but had had no dejection. Great thirst. Pulse 120, small. He complained of no pain whatever, but was very unwilling to have the least pressure made upon any portion of the abdomen, saying, "it hurts." His hands and feet were quite cool. His face less flushed than in the morning. He turned from side to side, and sat up in bed readily *without pain*. When lying upon his back, his legs were out-stretched, and he was not at all inclined to draw them up. With these indications of obstruction and inflammation, I ordered a portion of oil, combined with a small opiate; injections also to be employed, and fomentations, with turpentine, to be applied to the abdomen.

Monday, 8 o'clock, A.M.—He had passed a restless night. Did not vomit till towards morning, but there was constant nausea. No dejection followed the oil. The symptoms continued much as on the evening previous, only aggravated. Pulse 130. Tongue brown and dry. Face very pale, pinched, with an expression of anxiety and distress. Extremities cold. *Still moves about, sits up and lies down without any complaint of pain*. Several injections, given during the night, were retained.

6 o'clock, P.M.—Had vomited all medicines and nourishment taken during the day. The injections came away without bringing any faecal matter, or any perceptible odor. Prostration was much increased, with great restlessness and general distress. The extremities were very cold; the abdomen somewhat tympanitic. The patient will not allow it to be touched. The pulse very weak, respiration hurried, mind clear. He called constantly for iced water and ice, both of which he was allowed to have in moderate quantities. Gave a large injection of warm water, with the slight hope of good from its mechanical effect. It was retained but a moment.

12 o'clock, midnight.—The patient, though less distressed, appeared to be fast approaching his end. The body was cold, excepting the abdomen, and respiration was panting. Gave freely aromatic spirits of ammonia, with camphor; also, small opiates, repeated *pro re nata*. From this time there was no vomiting.

Tuesday, 5, A.M.—Dr. J. Sawyer saw the patient in consultation. He appeared easier than during the night, and less restless. His mind was perfectly clear. The tympanites had subsided very considerably after taking a turpentine enema a few hours previously.

The various means suggested in consultation for the relief of the patient were faithfully used during the day, but were ineffectual.

4, P.M.—Dr. Spofford was present in consultation, but the speedy termination of the case by death was too apparent to admit of further efforts to save our patient. Two or three hours before death severe spasms occurred, which were controlled by inhalation of sulphuric ether. Death occurred at 7, P.M., sixty hours after I was summoned.

Autopsy, made by Dr. Cross and myself, fifteen hours after death. The tympanitic swelling of the abdomen was not very marked. The intestines, when exposed, presented throughout their entire surface the bright red color of acute peritonitis. They were firmly bound together, and in the *left* iliac and pubic regions were entirely covered with a thick layer of coagulated lymph, beneath which was found a collection of two or three ounces of ichorous pus, very fetid. Tracing the ileum to the cæcum, the appendix vermiformis was found much enlarged, and tightly twisted upon itself near its junction with the cæcum, while the other end extended quite to the left of the median line, and in this position it was bound by firm adhesions. Its appearance was very dark, nearly gangrenous. From an opening in its presenting surface, at least two lines in diameter, pus flowed freely, and seemed to have been conducted by the adhesions of the parts into the left iliac region, where it was found in considerable quantity, while in the right there was comparatively little.

Removing the appendix and laying it open, it was found to contain a solid body of the size of a large bean, quite hard. This was, by a transverse section, found to envelope a small double oat, which was imbedded in its centre, the section presenting a regular concentric appearance, as if the seed had been rolled up in the enveloping mass.

Here the examination, for special reasons, was discontinued; but so far as the other organs were observed, they were perfectly normal in their appearance.

POLYPUS OF THE WOMB.

By J. H. BLAKE, M.D., NORTH AUBURN, ME.

[Communicated for the Boston Medical and Surgical Journal.]

Mrs. R., aged 57, was seen on August 25, 1860. She was in a very low condition, perfectly anæmic, and in great distress. Pulse 120, very small. Two brown streaks in the middle of the tongue. Had had seven children, the last twelve years ago, at which time there was some trouble about the afterbirth, which, she thinks, never came away. She dates her trouble back four years, during which time she has suffered from pain in the back and hips, and

"a dreadful bearing down," and has been frequently prostrated by hæmorrhage, so that she could not leave her bed for a considerable time. The bowels have been costive and relaxed by turns. At times, retention of urine, but also frequent micturition or absolute incontinence. Her trouble has been called "the turn of life," "menorrhagia," "womb complaint," &c., and she has been treated accordingly.

The *last* physician called made an examination, and said there was a polypus growing from the neck of the womb; that nothing could be done to effect a cure; that she must make up her mind to die. (This was last May, according to the report.) She did make up her mind to die, and was found in a desponding and (to her mind) hopeless condition, the last hæmorrhage, eight weeks ago, having prostrated her, so that she had not left her bed, though she was gaining a little strength.

An examination disclosed a large, hard, pretty smooth, white tumor, completely filling the pelvis. She said it did not come down, as it used to; in fact it could not, for so completely did it fill the pelvis, that the womb was pressed up so as to be as distinctly felt through the parietes of the abdomen as directly after labor. The patient was anxious to get well, but she had no hope, no courage. I gave her some stimulus, with twenty-five drops of tincture of opium, and sat down to talk with her, and if possible to gain her confidence, for I was a stranger, and had only been called on account of the urgent request of some friends of hers. In order to induce her to submit to the necessary treatment, I promised her a sure and speedy cure (though I should not be willing to say that I had no misgivings, on account of her prostrate condition), if she would take courage and try to keep in good spirits until I could remove the tumor.

Having obtained liberty to do whatever I thought necessary in order to effect a cure, I passed my left hand, which is rather small, with considerable effort, completely within the pelvis, and while the orifice of the vagina encircled my wrist, the tip of the middle finger just reached the mouth of the womb. My hand was in a tight place, but I succeeded in flexing the first and second joints of the second, third and fourth fingers so as to force the hand further up, and pass the index finger an inch or more within the os uteri, sweeping it around the pedicle, which appeared nearly two inches in diameter, and becoming satisfied that the insertion of the pedicle was far within the womb. The os was quite flaccid, and while the finger was within it, I could feel the womb far above the brim of the pelvis, with my right hand. The tumor was irregularly round, taking its shape, probably, from the parts in relation with it; its size was about that of a quart measure.

Not being able to obtain such an instrument as I wished, I took from an umbrella frame a wire brace fourteen inches long, and, after enlarging the hole in the end, bending it to suit the case,

and covering it with gutta percha, I had an instrument resembling Hunter's polypus needle.

August 26th.—Applied the ligature, without any difficulty, close to the womb, my small hand enabling me to ascertain this point. I could not, however, draw it very tight, on account of pain.

It would be too much to state all the particulars of this case, but those who have read Dr. Channing's excellent communications to the JOURNAL, during the last ten years, upon the subject of "polypus of the womb," will know that after the ligature was applied there was little or no hæmorrhage, that there was pain, restlessness, and all sorts of discomfort, that the discharge from the vagina has been profuse, dark, foul, and sometimes like rotten liver. The catheter was used, and injections thrown into the rectum. Stimulants and opium were required, and freely given.

On Sept. 5th, ten days after the operation, finding the ligature free, I removed the instrument from the vagina, and tried to draw down the tumor with the blunt hook of Hodge's forceps, but not succeeding to my mind, I applied the forceps as to the head of a child, and extracted it without difficulty.

The tumor weighed 12 ounces, was quite dark, soft, and probably not more than one quarter as large as it was when the ligature was applied. Upon it there was a spot of the size of an old-fashioned cent, quite rotten, and from which there had apparently been a discharge.

In the latter part of September, the left arm and leg became cedematous, but the difficulty disappeared after the administration of a saline cathartic, and the patient, on October 1st, was rapidly convalescing.

MEMBRANOUS STRICTURE.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—Some years ago, I published, in your popular JOURNAL, an article on stricture, and advocated, as I still do, the treatment of that disease by "*internal section*." In the above-named article, I referred to the fact that Civiale (now deceased) practised internal section down to the curve of the urethra, which he afterwards extended the whole length of the canal. I then, and often since then, have stated that I had found no case in which, in my hands, the practice had failed. The following case may, however, be considered an exception to the rule.

Mr. S., a gentleman of about 60 years of age, of excellent moral character, the father of a large family, and probably never affected with gonorrhœa, consulted me, about three years ago, on account of a difficulty in the passage of the urine. The stream, during several months, had gradually diminished, until the urine came away so slowly, that "six men in succession could urinate, at a

public 'watering place,' while he did once." On examination, I found the mouth of the urethra covered by a membrane, leaving only a very small orifice at the lower part, not larger than the point of a pin. According to custom, and by means of a small probe, introduced as a director, I divided the membrane freely, producing a full and free passage for the urine, much to the relief and gratification of the patient.

I was somewhat surprised, about a month subsequently, to receive a visit from my patient, and to learn that the orifice made by my knife had nearly closed, and that the passage of the urine was nearly as slow and tedious as before. I resorted to the knife again; and in order to secure the patulency of the urethra, and prevent the reproduction of the membrane, I applied the nitrate of silver, in stick, freely to the raw surface.

Six weeks afterwards, my patient presented himself again, with precisely the same difficulty, and was relieved for about the same length of time by the operation of the knife.

This has now been repeated, at about the same intervals, for at least three years; the membrane is reproduced, although cut out sometimes, and caustic applied in addition. In one respect, the disease is not a very serious or dangerous one, as relief is promptly afforded by the knife; yet it is a great annoyance, keeps the patient in perpetual anxiety, and might be dangerous were he not within reach of surgical assistance.

I send the case to you, in hopes that some one more experienced in the matter, than myself, will suggest a remedy.

Respectfully, yours, &c.

JAMES BRYAN.

1306 Walnut St., Philadelphia, Sept. 29th, 1860.

A BIOGRAPHICAL SKETCH OF HORATIO THOMSON, M.D.

By REV. G. A. OVIATT, OF SOMERS, CT.

[Communicated for the Boston Medical and Surgical Journal.]

HORATIO THOMSON, M.D., deceased at Belchertown, Oct. 5, 1860, at the age of 57 years. He was born in Tolland, Ct., Oct. 7th, 1803, and was the son of Dr. Gurdon and Betsy S. Thomson. Dr. Gurdon Thomson was, for many years, a physician of large and successful practice in Tolland, where he died thirty-one years since. Horatio Thomson spent most of his boyhood in Tolland, and studied medicine there with his father and his elder brother, Charles S. Thomson, who is now in the practice of medicine in Fair Haven, Ct.

Dr. H. Thomson graduated at the Yale Medical College about 1826, and immediately commenced practice as a physician in Tolland, his native town. He moved to Belchertown in December, 1828, where he resided and continued in the practice of medicine till his last sickness. In his profession he was largely successful,

and had a very extensive practice. He was a man of high honor and unbending integrity, and enjoyed the perfect confidence of his medical brethren, as also the confidence and affectionate regards of the community in which he lived. His practice was not confined within the limits of Belchertown, but extended into most of the adjoining towns.

Dr. Thomson was a man of few words, remarkable discretion, and sound judgment. In all his relations, he so demeaned himself that he commanded universal respect. He was a citizen whose word and motives were never called in question. He was a firm supporter of morality and good order, and was always ready to bear his part in every safe undertaking to promote the public good. He was a member of the Congregational church in Belchertown twenty-nine years, and as a christian was cheerful and constant in discharge of duty, and set an example of piety worthy of imitation.

The population of Belchertown is about three thousand. Having resided and practised medicine among this people some thirty-two years, he was thoroughly known throughout the town, and was the chosen, beloved physician in a great number of families. In his practice he was uncommonly successful as an accoucheur, and had had more than fifteen hundred cases of child-birth.

Dr. Thomson was always ready to obey the call to visit the sick, never showing any reluctance, and never requesting an excuse for the present on account of the darkness of the night, the severity of the storm, or the distance to be travelled under the most unfavorable circumstances, and never hesitating when he had no reason to expect the least compensation for his services.

His last sickness was long and extremely distressing; but in all his sufferings he was supported by his Saviour. His faith was unshaken to the last, and to his weeping kindred at his bed-side he spoke words of richest consolation. His end was peace.

His death is deeply deplored in Belchertown, and the expressions of grief at his funeral were truly touching. Many of the aged, as they wept, remarked, "*We hoped that he would live to attend us in our last sickness.*" His funeral was attended at the church by a great concourse of people, of all classes and ages, and many tears of heart-felt grief were shed as the last look at the shrouded dead was taken.

Dr. Thomson was first married November 15, 1827, to Miss Cordelia Chapman, daughter of Gen. Eliakim Chapman, of Tolland, by whom he had three children, one daughter and two sons. The daughter died in infancy. Of the sons, one, Charles H. Thomson, is now in the practice of law in Corning, N. Y.; and the other, George F. Thomson, is a physician, succeeding to his father's business in Belchertown. The first Mrs. Thomson died at Belchertown, Feb. 13, 1834.

Dr. Thomson was again married Dec. 4, 1834, to Miss Lucy

M. Doolittle, daughter of the Hon. Mark Doolittle, of Belcher-town. By his second wife, Dr. Thomson had four children, who all died in infancy.

Never was there a more devoted husband, a kinder father, or a truer friend than Dr. Thomson. Those who lament his death should be grateful to God for his fragrant memory, and rejoice with him that he has reached his heavenly home.

TUBERCULOUS DISEASE OF SUPRA-RENAL CAPSULES.

At a recent meeting of the N. York Pathological Society, Dr. ALONZO CLARK presented two specimens of tuberculous disease of the supra-renal capsules, which were taken, the Monday previous, from the body of a lady whom he saw in consultation with Dr. Halsted. Dr. Clark was only able to give an abstract of the history of the case. For several months the lady had been ill, the chief features of the disease being emaciation and occasional vomiting, with loss of strength, which exceeded that which could be easily accounted for by the loss of flesh. There were discolorations of very moderate extent upon the forehead, occurring in irregular patches. There was no enfeeblement of the intellect. At the time Dr. C. first saw her there was in the site of a blister, that had been applied over the epigastrium some weeks before, an intensely black color. There was also a bronzed discoloration along the lower lip. All these discolorations continued until the end, although they varied very much in intensity during the course of the disease. In the investigation previous to death, the idea was suggested that there was some disease of the supra-renal capsule present, but it seemed to Dr. C. that the discolorations were not sufficiently marked for the basis of such a diagnosis, and he pronounced them to be merely a variety of *ephelis hepatica*, dependent upon some derangement of the digestion—probably atrophy of the liver. The post-mortem examination showed that the conjecture as to the seat of the disease was verified. The two capsules were removed, with perhaps an inch or an inch and a half of the upper portion of the kidney attached. These bodies possessed a thickness two or three times greater than natural, caused by the deposit in their substance of hardened and white matter. These masses were found to be tuberculous in their character. Dr. C. stated that during the life of the patient he had suspected the existence of tuberculous disease of the lungs. She had no cough, but he thought that the case might belong to that class where this symptom did not present itself. An examination was made with a great deal of care in order to determine that point, and no evidences of disease were discovered. At the post-mortem examination, the promise having been given not to open the chest, and it being very desirable that the lungs should be examined, Dr.

Halsted succeeded, by entering the chest through the diaphragm, in removing nearly the whole of the superior lobe of the right lung (which organ is most likely to be the seat of disease in this country). The portion was removed and cut up, when several calcareous grains, larger than a mustard seed, but smaller than a raisin pit, were discovered throughout the mass, showing that there had been tubercles deposited. The only other point that was worthy of particular mention was the fact that the kidneys were diseased. Dr. C. was not aware that in the consideration of the lesions of the supra-renal capsule the existence of disease of the kidney had been taken into account, at all events it had not been sufficiently reported upon. It seemed to him worth while to learn what was the condition of the kidneys, and so he spent some time in a microscopic examination. The fibres of the structure were normal in quantity, the malphigian bodies were perfectly natural, which was also the case with the tubes in the pyramidal portion. But in the convoluted tubes scarcely an epithelial cell could be found. The larger of these cells were opaque from the accumulation of granular matter, and only here and there was a nucleus to be found. The liver appeared to be healthy. In the course of the disease the urine was frequently tested for albumen, but none was found. A few pus globules were found to exist under the microscope.—*American Med. Times.*

Bibliographical Notices.

Skin Diseases and their Remedies. By ROBERT J. JORDAN, M.D.
London: John Churchill. 12mo. Pp. 282. 1860.

THE author states that he has written this book to supply the want of a brief, yet exact work on skin diseases. It is very true that we have no good manual on this subject in our language, and in no department of medicine is one so much needed. The large work of Mr. Wilson tends rather to complicate than simplify the true history and treatment of cutaneous diseases, and although in its plan of classification and other respects an improvement upon that of Willan, yet it contains far too many wrong theories and perverse errors of observation to be the proper book to place in the hands of the student. The present work opens with a long introduction upon the history of the skin diseases and epidemics of the middle ages, and their causation, down to our time. The author concludes that the causes which led to the inordinate development of chronic skin affections during that period, and those which brought about the frequently-recurring pestilences, were closely linked together, and that there is an intimate bond between the causes of acute and chronic disease of the skin, which makes the measures necessary for the prevention of both forms one and the same. This portion of the book is written in a lucid and attractive style, and contains matter worthy of consideration.

It is sad, however, in these days of ours, when such strides are
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made in anatomy and pathology, to find a man going backwards to hug the easy, old system of Willan, which belongs, properly, away behind in the last century, when men were content to remain satisfied with the external exhibitions alone of nature and disease. Because it is simple and renders diagnosis easy, is no excuse for its employment to-day by men of science, and especially by a public instructor, as our author claims to be. To attempt to classify diseases by the appearances they present at a certain period of their existence is folly, for it not only unites disorders which are widely apart in their nature, and separates others closely allied, but must necessarily make one and the same affection belong to several different orders in the system, according to the stage of its progress. Eczema, for example, may exhibit, in its onward development, the typical forms of papule, vesicle, pustule, and scale. Where, then, does it properly belong? A system so arbitrary in its nature can lead to nothing but confusion, as a glance at the divisions adopted by our author will show. Under the head of Exanthemata we find scarlatina, rubeola and roseola, but for variola and its phases we must look elsewhere. Varicella, which is so akin to smallpox as to be considered a mere modification by many of the best and most experienced observers, is placed in the order Vesiculæ, while variola and vaccinia are arranged under the Pustulæ.

If we look for his definition of the term exanthemata, we read it is "characterized by redness, disappearing or diminishing on pressure, returning when the pressure is removed, and ending in desquamation." How well does this apply to purpura, which is classed under this head? Again, under the head of Squamosæ we find pityriasis, which is merely a seborrhoea, or disease of the sebaceous glands, and elephantiasis Arabica, which is a lymphangitis, or affection of the true skin, subcutaneous tissues and vessels, and although an hypertrophy of the epidermis may accompany, it is no more the type of the disease than adunque nails are of phthisis. But the order Tuberculæ exhibits the most heterogeneous and motley combination. Every disease which projects far above the level surface of the skin, everything which couldn't possibly be arranged under any other head, comes crowding in here. Mark what a list of banded horrors: acne, molluscum, frambœsia, lupus, cheloidea, lepra tuberculosa, spedalskhed, lepra astrachamica, malum alepporum, furuncle, carbuncle, pustula maligna, pastis glandosa, and equinia glandulosa. Here we have arranged together a disease of the hair follicles, ditto of sebiparous glands, a new growth of the corion and destructive process, a cicatrix-like formation, a frightful endemic which affects the whole body, the poisonous effects of inoculation with diseased animal matter, and the loathsome plague. If we search for anything common to them all, we shall find only the possible presence of a "tubercle" or elevation of the skin at some period of their development, and upon so slender a thread of consanguinity rests the union of the whole discordant phalanx.

Turning from this chapter on classification, we come to the description of the special diseases, which, on the whole, are concise and well sketched. On many points, however, we cannot agree with the author; for instance, it seems strange to class typhus and typhoid with skin diseases. His remarks on erythema are worth noticing. "Usually erythema is an altogether trivial affection; but it must not be for-

gotten that very serious disease, as tuberculous leprosy (elephantiasis) and pellagra, often begins in an erythematous condition of the skin." As for the word lichen, with the reservation of its use for a single though rare disease, the *L. ruber exudativus* of Hebra, we think it might as well be almost entirely given up. It is doubtful if there is a single form of it as described by all the English writers which should not more properly be classed with eczema or prurigo. Those who insist upon its individuality confess that in its chronic form it can scarcely be distinguished from chronic eczema, while there is nothing in their descriptions of its earlier stages which will not quite as well apply to either one or the other of the above diseases. Prurigo, however, should not be confounded with simple pruritus arising from mere nervous irritation, as the author does more than once. Under Pustula, besides variola and vaccinia, which in this connection certainly deserve no notice, we have ecthyma and impetigo. What is the etiology of these latter diseases, or how can we produce them? In the first place, on the healthy skin, by simple scratching. This causes a hyperæmia and infiltration of the papillæ, or, in other words, a papule. Continue the irritation, and we convert this into as fair a pustule as ever appeared in a figured case of these affections. So in prurigo, where the papules are ready formed, and the desire to scratch needs no prompting by the will, we see transformation into true, so-called, impetigo. The same happens in eczema and scabies, and is even more true in the latter, for here the insatiable scratching calls out an exaggeration of the same process, and "ecthyma" is the result. So lice, fleas and bedbugs are capable of producing similar appearances. We do not mean to say that there is no such thing as an idiopathic pustular eruption, but that it is rare, and that in the majority of cases impetigo is but a name applied to phenomena which are the result or sequelæ of mere mechanical irritation of the skin, generally produced by, and consequently a part of other diseases. In the order Squamosæ we find both a lepra and psoriasis, two distinct diseases, according to Dr. Jordan: the only difference between them, however, being regularity of form in the first, irregularity in the second. As varieties of pityriasis, he has mixed up several widely separated affections. His *P. versicolor* is a true cryptogamic growth, *P. capitis* is a seborrhœa, and *P. rubra* is only a stage of eczema.

We have not space to continue an analysis of the various diseases described in the remaining chapters of this volume. Many of them are far too summarily disposed of, and no discrimination between the two diseases known as lupus is shown. A special division is given to the diseases of the hair and nails, and the author seems inclined to adopt, without investigation, the views of Mr. Wilson in regard to the non-cryptogamic character of herpes tonsurans and favus, described by the former under the respective titles of porrigio scutulata and favosa. This is no place to discuss the matter. Far abler observers than Wilson, men distinguished in natural science, have decided that what he takes for degenerate human tissue is really a plant, and his statements in regard to pityriasis versicolor, which he confounds with chloasma, show that he is ignorant of the proper use of the microscope.

But of more practical importance than proper classification or correct handling of the subject matter in a work on cutaneous diseases, is that portion devoted to their treatment. In these affections the *vis*

medicatrix naturæ isn't of much account. Medicine, that much-abused handmaiden, here shows her superiority to popular mother nature, and in most cases is competent, when used with judgment, to relieve, if not to cure, where the older lady has tried too long in vain. Such general directions, however, as are given in the book before us, will be found of little value when we have a case at hand to treat. It is not enough to say that such a preparation is very good, in eczema, for instance. It may be, but we want to know when to use it. Eczema has several stages, and the remedy which may be beneficial in one period or phase of the disease, will very likely do as much harm if applied at another. In this want of special minuteness, or discrimination in the matter of treatment, lies the great fault of English works on this subject—a fault which renders them of so little value in the hands of an inexperienced practitioner. Too much attention is also given to the use of internal remedies to the exclusion of external applications, which are far more reliable and speedy than the former, and as truly curative in their effect. We lay the book down, sorry to believe that the want of a brief yet exact work on skin diseases will be as much felt as before its publication. J. C. W.

On the Theory and Practice of Midwifery. By FLEETWOOD CHURCHILL, M.D., M.R.I.A., &c. &c. With Additions by D. FRANCIS CONDIE, M.D. With one hundred and ninety-four Illustrations. A new American from the Fourth Corrected and Enlarged English Edition. Philadelphia: Blanchard & Lea. 1860. 8vo. Pp. 655.

THE reputation of Prof. Churchill for exhaustive treatment of whatever subject in midwifery he takes up, is well known and appreciated. The present treatise is very much enlarged and amplified beyond the previous editions, but nothing has been added which could be well dispensed with. An examination of the table of contents shows how thoroughly the author has gone over the ground, and the care he has taken in the text to present the subjects in all their bearings, will render this new edition even more necessary to the obstetric student than were either of the former editions at the date of their appearance. Prof. Churchill is a model for the absence of everything like partizanship in his writings. Every author and every subject is sure of a fair and impartial treatment at his hands, and we are glad to see, by the frequent references to American obstetric literature, a more generous spirit of appreciation than can be found in the great majority of foreign writers. No treatise on obstetrics with which we are acquainted can compare favorably with this, in respect to the amount of material which has been gathered from every source. The current periodical literature in this department seems to have been carefully studied and digested for use, making the volume more of an encyclopædia of midwifery than a treatise. Upon a few points, perhaps, there may be a difference of opinion, but as a general rule facts are stated, with proper references, and the reader left to form his own conclusions. In regard to the mechanism of labor (Part III., Chap. II.), the author follows Nægelè, of Heidelberg, and endorses his views. But since the publication of the elaborate article "On Cranial Presentations and Cranial Positions," by Dr. R. N. West (*Glasgow Medical Journal*, Oct., 1856, Jan., 1857), there seems to be good reason for withholding, to say the least, a portion of our assent to the Heidelberg profes-

sor's dicta. No one can read Dr. West's paper without being struck with the force of his arguments upon the points at issue, and feeling with him that perhaps the desire to be original led Naegelé into a line of argument not warranted by his facts, and that his dispute with those whom he brands with ignorance was, after all, "like the quarrel between the two knights about the shield which was gold on one side and silver on the other." Of this paper no mention is made by Prof. Churchill, but the facts embodied in it, and the conclusions drawn from more than 2000 carefully studied and recorded cases upon which the argument is based, cannot be lightly overcome. As a contribution to practical midwifery, and with which every practitioner should be familiar, as indeed he ought also to be with Naegelé's work—translated by Dr. Rigby—it deservedly stands high. But although we feel that Prof. Churchill could have incorporated the substance of Dr. West's paper into his own treatise with benefit, and have dwelt at this length upon the subject, as being one of the very first importance, a clear and familiar acquaintance with presentations being the *sine qua non* of success in difficult labors, there is so much that shows a conscientious and painstaking desire to bring his work up to the condition of this department at the date of its publication, and so great actual improvement over former editions, that we are inclined to place it at the head of its class for practical value. And last, but not least, there is a good index, the table of contents gives a good idea of the scope of the work, and the notes of reference are carefully appended.

Two chapters have been added in an Appendix, which very much increase the value of the book. The first of these—"Obstetric Morality"—is a reprint of an article contributed to the *Dublin Quarterly Journal*, in answer to one published in *The Dublin Review*, impugning Prof. Churchill's motives in his treatment of the question whether the operation of craniotomy is ever justifiable. It is a thorough and triumphant defence of his position, discussing the subject in its broadest relations, and leads to the only true and tenable ground. The other chapter treats of the qualifications and duties of the monthly nurse, and may be studied with advantage and instruction by all. Summing up the whole, we commend the volume, in the attractive shape which characterizes all the publications of the firm who have issued it, to the profession, assuring them that they will find within its pages a vast amount of information, excellently well arranged and presented in most attractive style. For sale by Brown & Taggard.

On the Right Management of the Voice in Speaking and Reading.
Third Edition. Enlarged. Pp. 106.

Stammering; the Cause and Cure. By the Rev. W. W. CAZALET, A.M., Cantab. Third Edition. Pp. 47. London: Bosworth & Harrison, 215 Regent St., and Renshaw, 356 Strand. 1860.

ON two occasions—December 29th, 1859, and January 5th, 1860—we noticed, at some length, the second of the above-named pamphlets. We are glad to find that a third edition of a work we then had occasion highly to commend, has been demanded. In this new edition, the author tells us, he has "introduced some observations on the nervous origin of stammering, which is much insisted on by the medical profession." He then mentions having had occasion to modify his own

opinions on this portion of his subject. We again heartily commend the *brochure* to the notice of the profession.

The production whose title we have placed first at the head of this notice, purports to be a careful deduction from the author's own experience and observation during more than fifteen years. The author says: "Having myself suffered from relaxation of throat, and the feeling of exhaustion after speaking and reading, I set to work to consider the cause. This led me to investigate the mechanism and action of the vocal organ, and the result has been the present work, in which I have endeavored to show the natural action of all the organs concerned in the formation of speech. I speak confidently of the effect that must follow from attention to the rules I have laid down, not only from my own case, but also from that [those ?] of others to whom I have imparted these principles."

Mr. Cazalet considers, in this work, The Functions of the Vocal Organs; The Management of the Breath; Clerical Sore Throat; Weakness and Loss of Voice; The Remedial Effects of Reading Aloud; The English Language; The Views of Archbishop Whately on Elocution; Delivery. The pamphlet closes with certain "General Observations."

While we cannot attempt an analysis, or even present a digest, of the author's views and propositions, we can recommend his volume to all who are interested—either personally or professionally—in the important subjects of which it treats. The cost of these little works is really insignificant when their actual value is considered. Thus, the pamphlet on Stammering is sold for an English shilling, and that on the Management of the Voice for two shillings and sixpence. M.

The Principles and Practice of Modern Surgery. By ROBERT DRUITT. A New and Revised American, from the Eighth Enlarged and Improved London Edition. With four hundred and thirty-two Illustrations. Philadelphia: Blanchard & Lea. 1860.

THIS book has been so long and so well known that it would seem as if the mere announcement of a new edition were all which the appearance of it demanded. But any one who only knows its early editions would hardly recognize the present. Many who remember it in their student days as a mere epitome of surgery, will be surprised to see the changes it has undergone, and how well the eighth edition merits the title of "*Principles and Practice of Modern Surgery*," in place of the original one, "*The Surgeon's Vade Mecum*."

It is a most admirable book. We do not know when we have examined one with more pleasure. The excellent plan of bibliographical references, in connection with each topic, makes it, instead of a mere student's manual, a book which every physician should have on his shelves; the plea that they held no surgery but Drutt's would then excuse few shortcomings as to a knowledge of the present state of surgical science. It is to surgery what Churchill's *Diseases of Females* is to obstetrics. It belongs now beside Erichsen, Nélaton, Gross, or any other systematic treatise, many of which it excels, and before none of which it need hang its head.

There is hardly a page which has not been in a great measure rewritten since the last American edition, from the fourth English edition, was published. The chapter on Inflammation has been adapted

to the present more modern views. Gun-shot wounds, which, since the Crimean war, may be said to be almost a new subject, have been treated entirely afresh, in such a way as to bring in the vast amount of material derived from the experience of recent warfare. Ophthalmology, the treatment of ankylosis, of vesico-vaginal fistula, ovariectomy, and the excision of joints, are discussed with all the light thrown on them by recent researches and improvements.

We should be glad to allude in detail to these changes, but space does not permit. We would simply indicate the chapters on Gun-shot Wounds, and the Radical Cure of Hernia, and on the Means of Producing Insensibility to Pain, as excellent specimens of the style of Mr. Druitt's work. We cannot forbear to note that he, too, as Mr. Erichsen has, gives in his tardy concession to the greater safety of ether over chloroform. He says, "it is much safer, less rapid in its action, and only one third as powerful. Besides, it produces complete muscular relaxation more perfectly, so that it is, perhaps, preferable in cases of hernia, dislocation and spasm."—P. 598.

This change in the opinions of English surgeons we believe to be in no slight degree due to the personal efforts of Dr. George Hayward, of this city, whose position and early connection with the history of ether enabled him, during his late visit to Europe, to give the influence of his voice and the force of his example at the very time when the too frequently deadly results from chloroform seemed to indicate that its use must be either in a measure abandoned, or some safer means of anæsthesia adopted. Although the administration of chloroform is conducted more cautiously than formerly, we are not aware that sulphuric ether has at all been substituted in England. It is something, however, to have its safety partially acknowledged, as, one of these days, it must be everywhere and entirely. We repeat, knowingly, and in spite of all that has been said, *the first authenticated case of death from sulphuric ether has yet to be made known.*

We have not yet spoken half its deserts, but we must close this already somewhat lengthened notice of Mr. Druitt's book. It may be proper to remark that the interpolations of the American editor are few, and, to a considerable extent, consist of bibliographical references.

We hope that at least no medical student will fail to possess himself of a copy of this work.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, OCTOBER 18, 1860.

YEAR-BOOK OF AMERICAN MEDICINE.—One of the necessary consequences of the increased facilities for printing, which characterize the present age, is the increase to overflow of the great stream of periodical and pamphlet literature with which the medical world is well inundated. Hardly a city of importance in the land but adds its share to the general storehouse upon which the reading medical public depends for its sustenance; and towns of low degree, even before outgrowing the inevitable bank, meeting-house, and printing-office, not unfrequently issue, among the other products of the latter, a

full-fledged medical journal, with its corps of editors and all the appurtenances of a living and breathing periodical.

Without for a moment intending to cast the slightest reflection upon our worthy cotemporaries, it follows, almost of necessity, that, mingled with much that is valuable in the vast amount of what comes to us in the shape of medical news, there must be a mass of crude and useless matter, only fit to be thrown aside and forgotten. The necessity of some method by which this literary chaff may be separated and disposed of, and the pure and unadulterated grain be delivered for present and future use, is no new suggestion. Literary threshing machines have been in operation for years past, and their semi-annual deposits in the shape of Ranking and Braithwaite are already too well known to require even a passing allusion.

It seems, from a circular which appears in our pages this week, that a well known and zealous member of the profession, one who has had much experience in this department of medical literature, proposes to aid in this sifting process by furnishing a year-book of American medical science and literature. We do not hesitate to say that we regard this plan, if successfully carried into execution, as one which cannot fail to do a real service. We have, it is true, besides the admirable abstracts just mentioned, the promise of a year-book by the New Sydenham Society, but there is still room for an exclusively American work of this kind, which would have a peculiar value, as presenting from time to time a brief review of the progress of American medicine. From the extent of the country, and the consequent variety of causes constantly acting in the production of disease, together with new methods of treatment, arising in part from the gradual unfolding of entirely new and valuable properties in medicinal plants before unknown, and with which the country abounds, an interest attaches to the advance of medical science in this western world, such as to warrant the plan proposed, and we heartily wish it the success it deserves. The following is the circular alluded to:—

“The undersigned proposes to issue a yearly volume with the following title: *Year-Book of American Contributions to Medical Science and Literature.*

“It is designed that part *first*, of each volume, shall comprise an arranged and classified *summary* of, and index to, all the important and original papers found in the various medical journals of this country, for the year immediately preceding. Part *second* will comprise a *summary* of, and index to, all papers found in the published transactions of the National and the various State and County Medical Societies. Part *third* will embrace reviews of all medical books of American authorship, published during the year, with a *summary* of all the novelties in opinion or practice therein.

“To the above plan and arrangement, such other additions shall be made as time and circumstances may suggest. The first volume will be issued early in the spring of 1861.

In the preparation of our *Summary of American Medical Journalism* for the *A. M. Monthly*, we have solicited a copy of all medical journals published in this country; and there are only two that have failed to comply with the request. To facilitate our design, we request an *exchange* with all *American medical journals*, to be sent to our address as issued. All medical societies who publish their transactions will, we trust, be kind enough to send their transactions to us. Publishers of medical books, particularly of American authorship, are earnestly requested to send, so soon as issued, *all books* of the character as above.

The importance of a work of the character as above, for the information of the profession, and for the honor and dignity of *American medicine*, will readily be conceded by all. We cannot prepare the work and publish at a pecuniary

loss, and hence the object of this circular is to request that all physicians who would encourage the work, and become subscribers to the same, would send us their names *at once*—payment to be made only on the publication of the work. The work shall contain from 500 to 1000 pages, be substantially bound, and furnished at the low price of *three dollars*. That we may know whether the work is to receive sufficient encouragement, we request that subscribers' names may be sent in immediately. As a special favor and encouragement of this truly national enterprise, we would request that all medical journals of this country would copy our circular.

"To editors and publishers we would say that it is designed that our *Year-Book* shall commence its gleanings with the year 1860. Journal editors and book publishers will remember this, in sending their respective publications to our address.

"All books, journals, published transactions, and names of subscribers, should be directed to

O. C. GIBBS, M.D.,

Freensburg, Chautauque Co., N. Y."

ANDREAS RETZIUS.—The Stockholm *Aftonbladet* for April announces the decease of this great physiologist. Andreas Retzius, Professor of Anatomy and Physiology at the Royal Caroline Institute, expired on the 18th of April, after a few days' sickness, at the age of 64. Sweden has lost in him one of its most honored men. The pupil of Florman and Abildgard, and, in subsequent years, the intimate friend of Johannes Muller, he combined all the merits of the elder school with all the prerogatives of the new. As an investigator, he had the good fortune of seeing all his numerous discoveries included in the system of science, and as a teacher few equalled him in the fervent interest with which he watched over the progress of his pupils, and in the bold, clear, vivid originality of his instruction and diction. He was one of those great workers on the soil of science who had acquired European fame. His comprehensive intellect embraced all subjects, however varied, that tended to the common good, and his assistance and coöperation were ever ready when the object was to force through all prejudices to make way for light and truth. Few amongst his contemporaries who lived and worked for the public good could be found who were not stimulated in their career of activity by the animatory contact with Andreas Retzius. In social life he was universally beloved. Warm in friendship, charitable in science, free from all selfishness and vanity, his memory will be long held amongst us in loving and grateful remembrance. He was born in 1796, became a student in 1812, and took his merit degree in 1819; afterwards became a teacher at the Veterinary Institution in Stockholm, and founded an anatomical museum there; undertook a scientific voyage to Norway, and later to Lapland, Germany, England, Ireland and France; was appointed lecturer on anatomy at the Caroline Institution, and inspector in 1830. In 1826, he became a member of the Academy of Sciences. In 1832 he founded, in connection with other men of science, a medical gazette; and in 1839 was named professor of anatomy, in connection with painting, at the Royal Academy of Arts. As an author, he was very productive. The titles alone of his scientific works fill three closely-printed pages in the "*Bibliographical Dictionary*."—*London Lancet*.

MEDICAL MISCELLANY.—Drs. Logan and W. F. Westmoreland withdraw from the editorial management of the *Atlanta Medical and Surgical Journal*, and are succeeded by Dr. J. G. Westmoreland as editor and proprietor.—The *Medical*

and *Surgical Reporter* states that Dr. Bradfoote Warwick, of Richmond, Va., has joined the surgical staff of the army of Garibaldi.—Dr. R. J. Paterson, Superintendent of the Ohio Idiot Asylum, has been appointed Superintendent of the Iowa Hospital for the Insane, at Mt. Pleasant, in that State.—Prof. E. M. Moore, formerly of Starling Medical College, has been appointed to the Chair of Surgery in the Buffalo School, made vacant by the resignation of Prof. Hamilton.—Dr. J. Aitkin Meigs, of Philadelphia, has been elected a member of the Société d'Anthropologie de Paris. He was proposed by MM. Geoffroy St. Hilaire, Beclard and Broca.—At the commencement of the Long Island Medical College, July 24th, the degree of M.D. was conferred on twenty young gentlemen. The whole number of students in attendance during the session was fifty-eight.—Lindsay & Blakiston will very soon issue a large work entitled *American Medical Biography*, by Prof. S. D. Gross. It will consist of memoirs of the most distinguished physicians and surgeons of our country.—Dr. D. Meredith Reese will soon put to press "a new and enlarged edition" of his medical lexicon.—Dr. H. D. Schmidt, late Assistant Demonstrator of Anatomy in the University Medical School, Philadelphia, has been appointed Demonstrator of Anatomy in the New Orleans School of Medicine.—The Chair of Anatomy in the Medical College of the State of South Carolina, so long and ably filled by Professor John E. Holbrook, has been vacated. Dr. Francis T. Miles, for many years Demonstrator of Anatomy in that institution, fills the chair thus made vacant. Dr. Samuel Logan, formerly Assistant Demonstrator, will succeed Dr. Miles.—The first session of the "Middle Georgia Medical College," located in the town of Griffin, will open on the first Monday in November.—A new journal, to be exclusively devoted to the subject of *Materia Medica*, is announced. It is to be called the *American Journal of Indigenous Materia Medica and Repertory of Medical Science*. It is to be published monthly, by Messrs. B. Keith & Co. The first number will appear in November.—The Medical Department of the "University of the Pacific," San Francisco, Cal., opens its regular course in May, which continues four months.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, OCTOBER 13th, 1860.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	47	29	76
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	38.2	36.6	74.8
Average corrected to increased population, . . . . .	..	..	83.4
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infan.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
15	4	4	4	0	0	1	3

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	29.799	Highest point of Thermometer,	70°
Highest point of Barometer,	30.133	Lowest point of Thermometer,	36°
Lowest point of Barometer,	29.326	General direction of Wind,	Westerly.
Mean Temperature,	50° 5	Whole am't of Rain in the week	0.646

MARRIED.—In Barre, Sept. 11th, Norman Smith, M.D., of Groton, Mass., to Mrs. M. J. Lee, of the former place.

COMMUNICATIONS RECEIVED.—Intra-Uterine Dislocation of the Knee-Joint.

BOOKS.—Elementary Treatise of Human Anatomy. By Joseph Leidy, M.D. (From the Publishers.)

Deaths in Boston for the week ending Saturday noon, October 13th, 76. Males, 47—Females, 29.—Accidents, 3—apoplexy, 1—congestion of the brain, 1—Inflammation of the brain, 1—bronchitis, 1—burns, 1—cholera infantum, 4—consumption, 15—convulsions, 1—croup, 1—debility, 1—diarrhea, 1—diphtheria, 1—puerperal disease, 1—dropsy, 1—dropsy of the brain, 4—dysentery, 1—scarlet fever, 4—typhoid fever, 3—gastritis, 2—hemoptysis, 1—intemperance, 2—disease of the liver, 1—congestion of the lungs, 3—gangrene of the lungs, 1—Inflammation of the lungs, 4—marasmus, 3—paralysis, 3—premature birth, 3—purpura hemorrhagica, 1—suicide, 1—tumor, 1—unknown, 3—whooping cough, 1.
Under 5 years, 31—between 5 and 20 years, 7—between 20 and 40 years, 19—between 40 and 60 years, 12—above 60 years, 7. Born in the United States, 53—Ireland, 19—other places, 4.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXIII. THURSDAY, OCTOBER 25, 1860.

No. 13.

INTRA-UTERINE DISLOCATION OF KNEE-JOINT.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—YOUR JOURNAL of July 26th, contains a case from Dr. WM. B. ATKINSON, in the *Medical and Surgical Reporter*, of Intra-Uterine Fracture of the Clavicle, which reminds me of a case that occurred in my practice, Aug. 16th, 1859, of Intra-Uterine Dislocation of the Knee-Joint. There may be cases of the kind on record, but if so, they have escaped my observation, and also the observation of several physicians and surgeons to whom I have related the case; but, without further preliminaries, I send you the case for publication.

The patient, a laboring woman, rather under the medium size, was delivered, after a natural labor, of a full-sized, healthy female child, whose left knee-joint was entirely dislocated, so that the toes rested upon the anterior part of the thigh near the groin. As soon as I could leave the mother, I took hold of the limb and brought it to its natural position, but to my surprise, as soon as I relinquished my hold, it flew back, as with a spring, to its former position; it was immediately brought again to its proper place, and held by the hands of the nurse, while I manufactured an apparatus for the occasion. Two pieces of whale-bone, one on each side of the limb, were fastened together with three pieces of tape, one passing under the popliteal space, the other two in front, above and below the knee. This served a good purpose for keeping the leg in position, and also, occupying but small space, admitted of the cleansing and dressing the child without removal. Some swelling and soreness occurred, and several weeks elapsed before the splints could with safety be removed.

Now, if a doubt exists in the mind of any as to when this dislocation took place, my reasons for believing it to be intra-uterine are based upon the following facts:—

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1st. Its disposition to revert back to its unnatural position when left to itself, showing contraction of the anterior muscles.

2d. The patella of this joint was materially smaller than in the one on the opposite limb.

3d. The anterior of the knee presented that peculiar wrinkled appearance presented in the popliteal space of fleshy infants.

I will add one circumstance; whether evidence or not, he who reads may judge. The mother, previous to delivery, was fearful that all was not right, for she was conscious of receiving an injury some two weeks previous, by overreaching while house-cleaning. The girl is now using her limb with as much freedom and dexterity as girls usually do.

J. YOUMANS, M.D.

Portageville, N. Y., Oct. 11th, 1860.

A STATISTICAL INQUIRY INTO THE CAUSES, SYMPTOMS, PATHOLOGY AND TREATMENT OF INVERSION OF THE WOMB.

DR. C. A. LEE, the author of the above article, which is published in the October number of the *American Journal of the Medical Sciences*, states that the "paper is not designed as a monograph, but rather as a collection of materials for such an essay at some future time." It will be found in its present state, however, to contain much valuable information, of which only the briefest possible abstract is here given.

The conclusions in this elaborate article, are based upon a synopsis of one hundred and forty-eight cases.

The author speaks of the extreme rarity of the accident, and states that in lying-in hospitals it is nearly if not quite unknown. Neither the annals of the Dublin Lying-in Hospital, nor those of the London Maternity Charity, show a single instance, in a total of more than 140,000 labors.

The cause of the difficulty is mentioned in only sixty-two cases; and of these, thirty-three were attended by midwives, a large majority of them in Europe. In thirty-nine cases, however, it followed pulling upon the cord, and, in seventeen, was caused by attempts made to deliver the placenta. In twenty-five cases the delivery was very rapid. In ten the cord was very short, and, in several, twisted around the neck. The most frequent cause is, therefore, traction upon the cord, and attempts to extract the placenta. In seven cases, the inversion was mistaken for polypus. The uterus was replaced in fifty-two cases, but seven of which were fatal—two from peritoneal inflammation, the rest from hæmorrhage and exhaustion. "The latest period in which reduction of the womb was accomplished, was in a case reported by Prof. J. P. White, where fifteen years had elapsed since the occurrence of the inversion. The fatal result, in this instance, from peritonitis, was regarded by him and his associates as accidental. Although the

operation would seem to be extremely hazardous, so long a period after the occurrence of the accident, yet the success of Tyler Smith, in a case of twelve years standing; of Dr. Coley, in one of seven years, and one of Charles West, of three months standing, will certainly justify the operation in cases perhaps still more chronic than this of Dr. White. It may, however, yet be found, that the extirpation of the womb by ligature is safer to the patient."

Three cases are mentioned as those of spontaneous reduction, but these require close examination. In thirty-one cases the placenta was separated before replacing the organ, and in ten reposition was effected without separation. A review of all the cases on record shows that the most favorable time for effecting a reduction is immediately after the occurrence of the accident; and if this opportunity be embraced, there will be rarely much difficulty, even with the placenta attached, and the attempt should first be made; for, if ineffectual, the placenta can then be removed.

Of thirty-two patients, from whom the uterus was removed by ligature, only four died. It is therefore evident that the danger of the operation has been much overrated. All of the circumstances in the case should, however, be taken into consideration before acting. When death has resulted from the application of a ligature, it has been in consequence of peritoneal inflammation.

Of fourteen cases of removal by incision, four died, "which is a rate of mortality nearly three times as great as occurred after the application of the ligature, and yet death seems in several of the cases to have been accidental rather than a necessary consequence of the operation."

BIOGRAPHICAL NOTICE OF HENRY BOND, M.D.

[WE have received Part V. of the *Transactions of the Medical Society of Pennsylvania*, at its Twelfth Annual Session in June, 1860, which contains, among other interesting articles, a biographical notice of the late Dr. Henry Bond, of Philadelphia, by Dr. A. Nebinger. We give the following abstract of this memoir.—Eds.]

DR. HENRY BOND was born at Watertown, Mass., on the 21st of March, 1790. His ancestors on his father's side came from Bury St. Edmunds, in the county of Suffolk, England. They were among the early immigrants who sought to secure for themselves and their descendants, upon the shores of the new world, the enjoyment of that freedom—personal, political, and religious—which they were denied at home. As early as 1636 they were settled at Watertown, in the then colony of Massachusetts; and they continued to reside there for several generations.

William Bond, the grandfather of the doctor, was, in common with the greater part of the descendants of the first settlers of New

England, a determined whig in principles—prepared at any moment to risk everything, even life itself, rather than permit the slightest infringement of that liberty, in the pursuit of which his ancestors had left their homes and country, and willingly subjected themselves to the privations, toils and dangers of a life amid the wilderness, and in the immediate neighborhood of treacherous and ruthless savages. As might be expected, therefore, William Bond was among the very earliest of those who had the boldness openly to embrace the cause of the American colonies in their contest for independence with the mother country. In 1775 we find him serving, in the 25th regiment of Massachusetts troops, as lieutenant-colonel, under Col. Thomas Gardiner, who was mortally wounded at the battle of Bunker Hill. On the death of the latter, he succeeded to the command of the regiment, which was then on duty at Prospect Hill, near Boston. In the spring of 1776, Col. Bond was ordered to proceed, with his regiment, to the northern frontier, to assist in the military operations against the Canadas. Whilst stationed at Mount Independence, on Lake Champlain, Col. Bond was attacked with dysentery, to which he fell a victim on the 31st of August, 1776. He left behind him several sons, residing at Watertown. Of these sons, Henry Manuel, a farmer by occupation, was the father of Dr. Bond. His mother was the eldest daughter of Capt. Phineas Stearns, also of Watertown.

In June, 1790, when Dr. Bond was scarcely three months old, his father removed with his family to Livermore, in the then District of Maine. He died on the 27th of March, 1796, in the thirty-fifth year of his age, leaving a widow and two children, a son and daughter.

Young Bond, in the spring of 1806, was sent to school at an academy in Hebron, Maine, over which Albion K. Paris for some time presided. At this seminary he was prepared for admission as a pupil of Dartmouth College, into which he matriculated in the year 1809, he being then in the nineteenth year of his age. Four years subsequently (August, 1813) he obtained his Bachelor's degree. While in college, we are told, he exhibited a fondness for the exact sciences, and was esteemed an excellent mathematician. He devoted himself with success to various literary pursuits, and was especially interested in historical investigations.

Of the particular circumstances which prompted young Bond to make choice of the profession of medicine as the pursuit of his future years, I am uninformed; all that I know is that his medical pupilage was commenced, immediately after his graduation at college, under the direction of Professors Cyrus Perkins and Nathan Smith, of Hanover, N. H., and diligently prosecuted until March, 1815; at which period he was appointed a tutor in Dartmouth College. This position he held until August, 1816, when he resigned. His professional education was completed in the medical department of Dartmouth College; by the faculty of which he was

admitted to the degree of Doctor in Medicine, in the month of December, 1816.

Dr. Bond entered upon the practice of his profession at Concord, N. H., on the first day of January, 1817, he being then twenty-seven years of age. During his residence in Concord, he delivered three summer courses of popular lectures on chemistry; pursuing at the same time, with great application, his general literary studies.

From some cause, the nature of which is unknown to me, Dr. Bond very soon became dissatisfied with his position as a medical practitioner in Concord, and, in consequence, finally left the place. In the autumn of 1819 we find him in the city of Philadelphia, in attendance upon the lectures of the medical department of the University of Pennsylvania; and in the spring of the ensuing year he settled himself down as a permanent resident of our city, where he continued actively engaged in the practice of medicine during the remainder of his life.

In the month of December, 1819, Dr. Bond was admitted an honorary member of the Philadelphia Medical Society. In the proceedings of this society he took a deep and active interest from the period he was admitted to membership until its meetings were formally suspended a few years since; serving it with untiring zeal and the utmost ability, in almost every capacity, from the humblest to the most exalted.

In the year 1819 we find his name enrolled among the honorary members of the Anatomical Society, instituted by Dr. A. Ramsey, in Surgeon's Square, Edinburgh.

Although somewhat reserved in his disposition and manners, especially towards strangers and in mixed companies, with but slight conversational powers, and ungifted with any of the arts adapted to secure the favor, by ministering to the weakness, the vanity, or the prejudices of those with whom he came in contact, Dr. Bond, nevertheless, by the dignity of his deportment, the true benevolence of his disposition, and the stern integrity exhibited in all his acts, was enabled in a short time to gather around him in Philadelphia a circle of warm friends, through whose exertions his success as a physician was zealously and successfully promoted; while his classical and scientific attainments won for him the esteem and admiration of his literary and professional cotemporaries. He thus succeeded, very soon after his settlement in our city, in securing a practice highly respectable from the number and standing of his patients, and sufficiently remunerative to meet, as he often assured me, his most sanguine expectations; a result the more honorable to him from the fact of his being an unmarried man, and without the support of any powerful family influence. Dr. Bond, we may remark, remained a bachelor through life.

Following in the footsteps of nearly every physician who has attained, in this community, a character for professional skill, our

deceased colleague availed himself, in the commencement of his career, of the admirable field which the practice of our several dispensaries furnishes for the acquisition of clinical experience and tact. Thus, in the year 1821, we find him fulfilling the somewhat arduous duties of prescribing physician to both the Philadelphia and Southern Dispensaries, to which, in 1822, he added those also of out-door physician to the General Board of Guardians of the Poor. The latter post he held for two years, during which period its duties were performed by him in a manner altogether satisfactory to all the parties interested.

In 1820 he was elected a member of the Philadelphia Academy of Medicine, an association organized for the cultivation, by observation and experiment, of the several collateral branches of medical science.

In the year 1823 Dr. Bond became a member of the Kappa Lambda Society of Hippocrates, meeting in Philadelphia; and at the period when, its mission having been accomplished, it was dissolved, he was its Secretary.

In 1824 he delivered, by appointment, an address before the Society of the Sons of New England, which was published at the request of the Society. It is described as a very creditable production, its subject being a vindication of the people and the institutions of New England.

It was in the year 1825 that Dr. Bond was received as a Fellow of the College of Physicians. From an early period after his reception he became a frequent contributor to its scientific proceedings. Among his contributions, contained in the published *Transactions* of the College, will be found the histories of a number of important and suggestive cases of disease, and many valuable papers, in several of which, modifications in surgical and obstetric instruments and treatment are proposed, which have received the approval of the profession generally.

For a period of eleven years—from 1833 to 1843 inclusive—Dr. Bond served the College as its Secretary. The duties of the office were performed by him in a most faithful, able, and satisfactory manner, as the Fellows bear testimony in the formal resolution adopted by them unanimously on the occasion of his resignation of the post, Feb. 7, 1843.

In 1844 the College elected him one of its Censors, to which highly responsible and honorable station he was annually re-elected up to the period of his decease.

Dr. Bond was appointed, in 1833, by the Select and Common Councils of the City of Philadelphia, one of the members of the Board of Health; and in March, 1836, he was unanimously elected by the Board its President. His services in this body were most important. His suggestions, his decisions, and the measures carried out at his suggestion, in reference to the weighty questions—involving always the comfort and health, and often even the lives,

of the entire community—which came constantly before the Board, demanding its prompt action, were all marked by sound judgment, and a familiarity with the true principles upon which all sanitary movements adapted to the circumstances and the wants of a large commercial community must be based to insure their being carried out successfully.

About the year 1834, a very decided and well-directed movement was made by a number of the leading members of the medical profession of Philadelphia, unconnected with the schools, to elevate the standard of medical education, and to insure the competency of those admitted to practise as physicians. In accordance with a system of instruction and graduation, adopted after great deliberation, the Philadelphia College of Medicine was organized. Its plan was nearly that of the London Medical University; having in contemplation the conferring of the degree of Doctor in Medicine upon such as should present themselves to its board of examiners, and pass a satisfactory examination in the various branches of medicine and its collateral sciences, after attendance upon a prescribed course of studies, embracing the lectures and demonstrations of such teachers as should be approved by the college. These teachers not being restricted to a single one upon each branch included in its curriculum, but admitting of a choice upon the part of the pupil among several on each branch, should several, as would undoubtedly be the case, be pronounced qualified by the college. The college received, in 1835, a charter from the Legislature of the State. In this movement Dr. Bond took from the first a deep interest, and was especially active in furthering the efforts made to render it successful. He was named in the charter as one of the corporators of the college, and was elected its first treasurer.

It is not our intention on this occasion to examine into the causes which eventuated in the relinquishment of the scheme of improved medical teaching and licensing thus matured. What influence the election to professorships in popular medical schools of some of its leading and most strenuous supporters had in preventing the attempt being made to test its feasibility by actual practice, it is very difficult to say.

In 1840 and 1850 Dr. Bond was sent as one of the delegates from the College of Physicians to the decennial sessions held in those years by the convention for revising the United States Pharmacopœia; and in 1846 he was appointed by the Philadelphia Medical Society a delegate to the convention, by the action of which the organization was effected of the American Medical Association. To the latter body he was also on several occasions elected a delegate on the part of the College of Physicians and Philadelphia County Medical Society. It does not appear, from the published transactions of the association, however, that he took at any time an active or very prominent part in its proceedings.

It was not solely with the medical associations of this and other cities that we find the name of Dr. Bond associated; it was not by his professional colleagues alone that a correct appreciation was formed of his character and attainments; his moral and mental worth, his untiring industry, and accurate business habits. We find him enrolled, also, as a member of a large number of literary, scientific, and benevolent associations.

Dr. Bond was in person rather above the medium height, large limbed, with strongly-marked features, and of a grave, thoughtful, but, at the same time, benevolent cast of countenance, lighted up, occasionally, by a quiet smile. He was slow, deliberate, and methodical in all his movements. His conversational powers were very restricted; his want of fluency of speech was evident on all occasions, and on all subjects; this was the more remarkable in one who like him was a careful, and, within the range of his favorite topics, a somewhat extensive reader, and a clear thinker.

During the earlier portion of his life he appears to have enjoyed robust and uninterrupted health. Several years, however, previous to his death, symptoms developed themselves indicative of organic disease of the heart. These increased gradually in intensity, rendering active exercise inconvenient, and obliging him to restrict his professional engagements within very narrow limits, and finally to abandon them entirely.

On the 17th of August, 1858, he was seized with apoplexy and paralysis of the left side, whilst walking, in the early part of the afternoon, in Washington Square. From this attack he rallied, and it was not until nine months after that his death occurred. This took place suddenly on the 4th of May, 1859. He was found dead by his servant at seven o'clock in the morning. He was lying on his face, within a step of his bed, and with a contused wound on his right eyebrow, which had bled a little, and was caused probably by his striking against the lower part of a book-case which was close to, and at right angles with, the bed. It is presumable that, in attempting to rise from bed, life was suddenly extinguished immediately after, if not at the moment of, his fall.

An examination of his body after death showed hypertrophy with valvular disease of the heart, and softening, to a considerable extent, of the brain.

The contributions of Dr. Bond, of a professional character, were chiefly in the form of communications to the societies of which he was a member.

At a meeting of the Kappa Lambda Society, held Feb. 25, 1859, he read a paper containing observations on the treatment of fractured patella, with the suggestion of an approved apparatus adapted to retain the fractured surfaces of the bone in contact until their union is effected. This communication was published in the seventh volume of the *North American Med. and Surg. Journal*.

Among the communications presented by Dr. Bond to the Col-

lege of Physicians and printed in its *Transactions*, we find one read by him at the session of July 30, 1828, on the subject of foreign bodies in the œsophagus, with the best means for their removal.

In another communication, read at the session of the College held Feb. 6, 1844, Dr. Bond describes a very ingenious forceps for the removal of the placenta when retained in cases of abortion; an instrument confessedly much better adapted for the purpose than any of those previously in use.

At its session of Nov. 20, in the same year, he described to the College a modification of the ordinary midwifery-forceps, which he had devised in order to facilitate the application of the instrument, and to allow of its blades being locked in certain cases of labor, where this cannot be readily done when the forceps, as usually constructed, are made use of. The modification in question consists in an adjustment of the joint by which the two blades, when locked, admit of a rocking motion upon each other, within certain limits, which can be increased or diminished by means of a screw. This contrivance is a very ingenious one, and cannot fail, we think, to increase the usefulness of the instrument.

At a subsequent session—that of Dec. 2, 1851—Dr. Bond presented a very elaborate memoir on the subject of fractures of the lower end of the radius, and on their management. In the memoir a splint is described for dressing the fractures referred to, which is intended to obviate the danger of a deformity which is very liable to occur when the usual plan is pursued of dressing the fracture with flat, straight splints, extending beyond the points of the fingers. That the splint of Dr. Bond is constructed on correct principles, is almost universally conceded, and, with but slight modifications, it has been adopted, we believe, by the entire profession of our country.

We are unacquainted with any productions of Dr. Bond other than those of a strictly professional character, to which we have already referred, with the exception of a work in two octavo volumes, comprising in all some twelve hundred pages, published in Boston in the year 1856, entitled *Watertown Family Memorials*, with notes and illustrations. Of this we can speak only from the report of others. By such of our friends as have examined the work, and upon whose judgment of its merits we can place full reliance, it is said to be a very creditable production, exhibiting great and laborious research, sound judgment, and good taste. It presents a clear, unassuming narrative of local and family histories, which cannot be otherwise than of deep interest to the numerous descendants of those whose memorials it commemorates.

Among the unpublished manuscripts left by Dr. Bond is one exhibiting in tabular form the statistics of thirteen hundred and seven cases of labor superintended by himself. Every important fact connected with these cases is carefully noted: the age of the mother, whether it was her first, second, third, &c., confinement; the presenting part of the foetus, with its position in the pelvis;

the period of the day when labor commenced, its duration, and the hour when it terminated; its character, and the result in respect to both child and mother. We refer to this table, as well on account of its real value as a reliable contribution to obstetrical statistics, and one which we hope to see shortly placed within the reach of the medical public, as from its presenting an evidence of the doctor's methodical habits, his industry, and his fondness for the numerical method in the notation of facts.

Those most intimate with him freely conceded to him their unlimited esteem; while his mental attainments and moral worth commanded the respect of all who knew him. He was never able, however, to attain to that general popularity which often constitutes a most important element of success in life, partly because of his apparent coldness of disposition, but mainly, we suspect, because of his entire freedom from a desire to court, by flattering demonstrations, the good opinion of those with whom he was brought in contact, or, for his own advantage, to conciliate their prejudices. He was invariably courteous in his demeanor, exhibiting always, and to all classes, that true politeness of manner which is equally removed from the vulgar rudeness affected by such as would aspire to the reputation of an honest bluntness, as from the servility and studied adulation of the mere man of the world.

The mind of Dr. Bond was characterized rather by depth, solidity, and caution, than by originality, brilliancy, or quickness of conception. He was unimaginative, even to a fault, and over-fastidious in his rejection of all other evidence than that which is strictly demonstrative. His opinions were formed slowly, after a close, and, as he would fain believe, unbiassed scrutiny into the nature and true bearing of the facts upon which they were based; but when his opinions were once formed, it was with difficulty he could ever after be persuaded of their fallacy, or of the insufficiency of the foundation upon which they had been laboriously erected. He was, in consequence, tardy in the admission of novel doctrines in medicine, and of all newly-announced discoveries in either of its departments. It was with difficulty, therefore, that he strove to keep even pace with the rapid improvements, additions, and extension by which, in his day, medical science and practice were so eminently distinguished. Though never, perhaps, strictly speaking, actually behind the existing state of knowledge in respect to his profession, he was seldom if ever in advance of it.

As a practitioner of the healing art he was skilful and eminently successful, and as an observer exact, cautious, and industrious. The severity and mathematical precision of his mind, however, constituted serious impediments in all his attempts to communicate, from his own well-replenished stores, knowledge to others—depriving him of the ability to pour forth, almost unconsciously, because of his own overfulness of observation and of thought, a constant stream of instruction, clear and attractive, from which all alike could profit.

CALCULUS IN THE NOSE.

BY W. N. BROWNE, M.D., OF MELROSE.

JOHN CORKET, æt. 66, came on the morning of 20th July to consult me about a swelling of his nose, which was becoming very painful, and completely obstructing his breathing through the nostril. Upon looking at the nose, I found it very much swelled on the right side, and the ala pushed out as by some large body filling up the nostril. On further examination I found the left nostril quite closed up, and covered over by a membrane or skin, and that the right one was all but closed with a similar membrane, except at the centre, where there was a small hole, that admitted, with some little difficulty, the end of a probe, and from which there discharged a little glairy mucous fluid, but not purulent. When a child, he had suffered from a very severe attack of confluent small-pox, and, after his recovery, his nostrils were found to be quite grown together. A great number of years ago an attempt was made by a surgeon in Kelso to open them; but the operation had not been very successful, as the left nostril had closed up entirely. The right one was closed up, all but the small orifice mentioned. On passing a probe through this opening into the nostril, it came upon a substance which felt hard, rough, and slightly movable, and which entirely blocked up the nostril, and prevented the probe going further back. I asked him how long it was since he had observed this body in his nose; and he said he thought it began to form eight or nine years ago. That was the time when he first noticed it, and then he thought it about the size of a pea, and that on putting in a large pin he could easily move it up and down; but that for some time (how long he could not say) he could not do this. I incised freely the membrane that closed up the right nostril, and then with a small pair of polypus forceps laid hold of the foreign body, and after a little difficulty extracted the calculus. It measured fully an inch and three-eighths in its greatest length, by an inch in breadth, and nearly half an inch in thickness at one point, and weighed two drachms thirty-three grains.

NOTE BY DR. SAUNDERS.—With a view to ascertain the structure and composition of this curious calculus, a transverse section was made through the posterior thicker part of it. The general surface of the section was smooth and dense, of a greyish-white color, and presented a number of irregular concentric lines, indicating the deposit of the calcareous matter in successive layers. Near the central part of the section was observed a small round body, of a dark color, and rather soft consistence, about the size of a small pea. This seemed to form the nucleus of the concretion; but it did not bear resemblance to any distinct foreign body that could have been introduced from without into the nostril; its presence is difficult to explain—a difficulty, that the chemical analysis, which shows it to consist of fatty matter and iron, does

not clear up. This dark nucleus is exceedingly small when compared with the mass of the calculus. For the chemical analysis I am indebted to Prof. G. Wilson, who says—"The nasal calculus was examined by my assistant, Mr. Irvine, who reports that the quantity at disposal for analysis, consisting only of the sawings collected during the section of the calculus, was too small for more than a general examination. The calculus contained a small dark nucleus, which readily took fire when approached to a light, and blazed with a flame and an odor resembling those of tallow, but the residue did not char, and the ash left was brown. This ash, when analyzed, yielded only oxyde of iron, so that the nucleus of the calculus consisted apparently of some fatty body associated with iron, which may have been in a metallic state and accidentally introduced, or present in some form of combination. The body of the calculus was not sensibly combustible, and when heated did not char. It dissolved with effervescence in hydrochloric acid, and was found to consist of phosphate and carbonate of lime, with which, probably, magnesia was associated."—*Edinburgh Medical Journal*.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

Two Cases of Cancer of the Womb.—*Question as to the fact of there being a hue peculiar to Cancer in general.* Dr. JACKSON reported the cases which had recently been, for a short time, under his care at the Hospital. The first was a married woman, æt. 40. Her paternal grandfather had died of cancer of the throat; and her father has now cancer of the face. Catamenia regular until two months ago; and since then, every three weeks. General health never robust. Dated her sickness back nine months, since which time there had been leucorrhœa, with pain in the lower part of back, but not extending to the neighboring parts, and none in the womb, so far as she was aware; also headache, with considerable loss of flesh and strength. For four or five months before admission, she had had a discharge daily from the vagina, of from 3ss. to 3i. of blood, and without pain. She was up and about, and had given up her work not long before; her general appearance being sufficiently well. On examination, the posterior lip of the os uteri seemed to consist of a collection of hard, rounded, scirrhus masses; the anterior lip being very much less affected.

The second patient was a widow, æt. 44 years, and always healthy. Catamenia regular till six years ago, when they ceased. Last June uterine hæmorrhage commenced, and continued until three weeks before admission; never in any great amount. For the last three weeks leucorrhœa; the discharge being more or less offensive and never abundant. Since June, had had œdema of the upper as well as lower extremities, with much pain in the region of the kidneys, which last organs had been regarded as the seat of the disease. Urine passed frequently, but generally without pain, though this last came on be-

fore admission, and increased much after vaginal examination. Had also had pain in back of pelvis, passing down thighs, but not especially in hips or the region of the womb. Had kept her bed some time, with loss of flesh and strength, but emaciation not marked. On examination, the vagina felt as if infiltrated by dense carcinomatous disease; being much thickened and so contracted that the tip of the finger only would enter the diseased portion; the disease commenced not far above the vulva, and the uterus was inferred to be similarly affected, but an attempt to prove this by examination was not thought justifiable.

Dr. Jackson remarked upon the very comfortable condition of these two patients, considering the amount of disease they must have had, and he especially remarked upon the complexion which, though anæmic in one, was not remarkable in either of them, considering their age. Dr. J. said further that, for many years, he had been inclined to doubt the fact of there being a "peculiar hue" in cancerous disease, as is generally supposed. The idea, he said, was so well established, that it seemed to be taken for granted; and it would be well, he thought, to have the point examined statistically, and ascertain how often the hue existed in cancer, and how often in other cases. He believed that much depended on the original complexion of the individual; a dark complexioned person looked very differently, when anæmic and reduced by disease, from one whose complexion is florid. Dr. J. said that the above question was one of practical importance; inasmuch, as this hue, to say the least, is very frequently entirely wanting in the most marked cases of cancer; and, in the diagnosis of a questionable case, he believed much importance would be attached to it.

Dr. MINOT said he had two cases of cancer of the womb under his care, in neither of which was there any peculiarity of complexion, beyond the simple pallor characteristic of severe and painful disease. One of them was in a young woman, only twenty years old, a hospital patient, about the nature of whose disease there could not possibly be any doubt. The cervix was elongated, and enlarged, almost completely filling the vagina, and covered with warty vegetations which had also spread to the walls of the vagina. The other patient was seventy-five years of age. In the next bed to the first patient, was a woman with a huge fibrous tumor of the uterus, who had had long-continued hæmorrhage, by which she was greatly exhausted. This patient had that peculiar lemon-colored complexion, supposed to accompany malignant disease. In another patient, who had long suffered from hæmorrhage from polypus of the uterus, the complexion was quite sallow.

Dr. PUTNAM thought that the mere absence of the natural color gave rise to a certain yellowness in the advanced stage of cancer. In a patient of his with cancer, whose complexion was naturally florid, there was well-marked sallowness towards the close of life. In another case of advanced cancer, sallowness first appeared after hæmorrhage, but vanished after the patient had rallied from the attack; it is now beginning to reappear, in consequence, seemingly, of the profuse cancerous discharge which takes place.

Dr. COALE had had a patient who died after the removal of a cancerous breast, the whole system being affected with the disease. She

had a very clear complexion. The same was the case with two other patients affected with cancer.

Dr. PALMER said that in three cases of cancer, one of the breast in a woman of 38, another of the uterus in a patient of 40, and a third of cancerous deposit on the peritoneum, there was no "cancerous complexion."

Dr. DALTON had seen many cases of cancer of the womb in the course of his practice, and should think that the peculiar complexion existed in as many as one half, so as to be quite marked. He has now a patient who has been sick with cancer of the womb for two years, who preserves her complexion, except that she has the pallor incident to chronic disease.

OCT. 8th.—*Large Dose of Morphia taken as a Stimulant*, Dr. W. E. TOWNSEND said he was in an apothecary's shop, a few days ago, when a young woman, about 25 years old, entered and asked for six cents' worth of morphia. She was supplied with *four grains* of the article, which she mixed with a little carbonate of soda in a glass of water, and swallowed. Dr. T. remonstrated with her as she was putting the glass to her lips, but she said she often took it, and it did her no harm. The apothecary afterwards said she had been in the habit of doing the same thing for several years, and that such instances were not uncommon.

Dr. GOULD strongly condemned the conduct of the apothecary, and said that no one was excusable for selling morphia in such quantities without a prescription.

Dr. DURKEE suggested that the drug might not be pure.

Dr. TOWNSEND said he had examined the article, and found it to be perfectly pure.

Dr. DURKEE had known a young man 25 years old, with tertiary syphilis, to take a drachm of morphia in fifty-five hours.

Dr. ADAMS had under his care an old woman with cancer of the uterus, who took the same quantity in twenty-four hours.

Dr. FIFIELD said, when he was a dresser in a London hospital, a man was brought in with a dislocated shoulder, who begged for a drink before the limb was reduced. A glass of water being brought, he took a bottle of laudanum from his pocket, and poured out half an ounce of it, which he mixed with the water, and drank. The man said that a mixture of laudanum and porter was a common drink among the dock laborers of London.

Dr. JACKSON said the practice of opium-eating was exceedingly common in our country towns, and this opinion was confirmed by other members.

OCT. 8th.—*Obstruction of the Bowels, caused by Disease of the Rectum*. Dr. GOULD reported the case, the particulars of which were communicated to him by Dr. L. R. Sheldon. The patient was a lad, 12 years of age, who was first seen by Dr. S., August 20th. He was then suffering from frequent and severe paroxysms of pain in the belly, obliging him frequently to leap out of bed and stretch himself upon the floor. His favorite position was such as would secure pressure upon the abdomen, and so continual were his changes into almost every position, that it was difficult to engage his attention long enough to obtain any information from him relative to his case. He had a constant and intense desire to have a movement of the bowels, and would

bound from his bed every few moments to get upon the vessel, being persuaded that he should instantly have an evacuation; and though he was deceived hundreds of times, still he was positive that he should succeed at the next attempt. Nothing but actual force could restrain him from these frequent attempts to get a passage.

He referred his principal pain to the umbilicus; there was also some pain at the lower part of the bowels. He was very much emaciated; the tongue was slightly coated; pulse but little accelerated; skin yellow, very dry and harsh; there was some thirst, and occasional nausea and vomiting. The abdomen was full, and uniformly hard; there was no local tenderness.

On inquiry, Dr. S. learned that the boy had been taken from school in the Spring, on account of loss of flesh, and what were supposed to be dysenteric symptoms, and was sent into the country for the benefit of the air. There had been a slight appearance of blood with the small quantity of hard faecal matter which he voided. He had been under treatment for dysentery by a homœopathic practitioner for six weeks, during all which time (and for some weeks previously) he had not had one free action of the bowels. During this long period of *filling up* (as one might say), his appetite was variable, and he would occasionally vomit his food. He would often hang over something, or pile up pillows and lay across them, and when out of doors would frequently stretch himself on the earth, for relief.

From the history of the case, the absence of febrile symptoms, the loaded state of the bowels, and the severe pain, Dr. S. felt that if the patient were relieved it must be done by removing the accumulation of impacted faecal matter by mild means; he accordingly prescribed the fourth of a grain each, of sulphate of morphia and ipecacuanha, every four hours, followed by castor oil and oil of turpentine. This produced the expulsion of some hard, black, tarry lumps. An enema of warm water was then ordered, but it was found impossible to administer it, on account of some obstruction. A digital examination was then made, which revealed a constricted state of the rectum, there being only a small opening. An attempt to pass a flexible tube into the rectum having failed, he was ordered warm baths and opiates. On the 25th he passed some hard lumps, containing cherry stones and berry seeds, which had evidently been swallowed several weeks before. He was ordered calomel and morphia, followed by castor oil and turpentine, which was repeated on the next day, when the hopes of the patient and of his attendants were raised by the passage of an enormous quantity of tarry lumps and berry seeds, firmly adherent together; to use his own expression, he passed a "cart-load" of them. The abdomen was now much reduced in size by this discharge of matter and flatus, and Dr. S. could distinctly trace, upon the right side, a hard mass, extending about four inches above the cœcum. There was at this time but very little tenderness. The pain, however, continued without mitigation, the countenance became anxious, the abdomen was distended with flatus, and the pulse was at 100, and weak.

Dr. Gould saw the patient in consultation on the 30th, and after etherizing him, succeeded in passing the tube through the stricture, and letting off a considerable amount of offensive faecal matter and flatus. The pain was not relieved by the operation, and it was repeated in the course of the night, with the same effect as before. The

pain was then somewhat diminished; but he now sank rapidly, and died at 7½ o'clock on the morning of the 31st.

At the autopsy, the intestines in the neighborhood of the cœcum were found of a dark color, and were smeared with a small amount of fecal matter, which issued from a laceration which might have been made during the examination. The intestines were generally distended with flatus. About two inches above the sphincter ani, the rectum was constricted for two inches, the intestine being surrounded with a morbid tissue, half an inch in thickness, and resembling the pancreas in appearance when cut.

The diseased part was examined by Dr. ELLIS, who remarked that the mucous membrane was, in parts, ulcerated, and the muscular coat much thickened. Several round nodules were found in the tissues beneath the muscular coat. One, about half an inch in diameter, was of a whitish color, and resembled boiled sago. This, examined with the microscope, presented appearances like those figured by Rokitansky in connection with colloid, in the last German edition, Vol. I., pp. 281 and 282.

Dr. JACKSON remarked that cancerous disease of the intestines was almost unheard of in so young a subject, though not uncommon in other organs at that age.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, OCTOBER 25, 1860.

DR. ACLAND, the Regius Professor of Physic at Oxford, a Fellow of the Royal Society, and a member of the General Council of Medical Education and Registration of Great Britain, coming to America as the Physician of His Royal Highness the Prince of Wales, paid a visit to the Massachusetts General Hospital on Thursday last, at the invitation of the venerable senior member of our profession, whom we all delight to honor, and was introduced by him to the past and present medical officers of the Hospital, to the President of the Massachusetts Medical Society, and to some of its distinguished Fellows, who accompanied him on a general inspection of the institution. Dr. Acland showed much interest in all the details of provision for the care and comfort of the patients, and for the proper registration and study of disease, and his commendation may be valued as that of one who knows well what a hospital should be that patients may be kindly and properly treated, and that the histories of their symptoms, and the condition of parts and organs as observed during life and after death should be so recorded as to be available for purposes of science. The amphitheatre in which ether was administered for the first time, and the surgeon who performed the first operation on a patient rendered insensible by its means, were regarded with great interest.

The members of the medical profession of Boston, present on this occasion, were no less favorably impressed than were all others who were brought into personal communication with the gentlemen comprising the suite of our late distinguished visitor. In common with other journalists, we may express our satisfaction with the visit just paid

to our city, as a source of so much immediate gratification, and as a means of bringing us into friendly and pleasant relations with those now inhabiting that land which, next to our own, holds most of all which we love and admire.

THE MEDICAL SCHOOLS OF LONDON.—On the first of October the medical schools, in connection with the leading metropolitan hospitals, were opened by inaugural addresses by the most distinguished professors—that at St. Bartholomew's being by Mr. Savory; at Guy's by Dr. Weeks; at St. Thomas's by Mr. Grainger; at the London Hospital by Dr. Barnes; at King's College by Dr. Johnson; at St. George's by Dr. Pitman; at Westminster by Mr. Powar; and at Middlesex by Dr. Coote.

These addresses, some of which are of considerable length, are all marked by a liberal and manly tone, and contain much sound and practical advice.

We are glad to learn that the good work of training hospital nurses has already been commenced in earnest at St. Thomas's. To this Mr. Grainger thus alludes in the course of his remarks:—

“He had great satisfaction in stating that owing to the wise munificence of one whose name would find an echo in every English heart, and who belonged to that noble self-sacrificing band, already illustrious by a Marguerite d'Angouleme, a Lady Rachel Russel, a Louisa of Prussia—Florence Nightingale—one of the greatest wants in the management of sufferers from accident and disease, skilful and tender nursing, promised to be supplied. There was at this time training in the wards of St. Thomas's Hospital 15 nurses, supported entirely by the Nightingale foundation, who had been selected with great care, and who, after proving themselves qualified by examination, would be sent to public institutions to minister to the sick. Already individuals of a superior rank had, prompted by Christian charity, offered their services, and there was reason to hope that an entire revolution in the system of hospital nurses, indeed of the whole class, would, at no distant period, be the result of this philanthropic measure.”

Dr. Johnson, of King's College, after a few introductory remarks, thus refers to the late Dr. Todd:—

“And now, before I proceed further, let me revert for a moment to the mournful event which lately cast so deep a gloom over this college in particular, but which also excited a very general lament throughout the kingdom—I mean the death of Dr. Todd. You are all aware of the circumstances of his decease, in the midst of a career of almost unexampled prosperity and usefulness. I need not dwell upon the painful details, but I feel that I should be guilty of a serious omission, both of duty and affection, were I not upon this occasion to allude to some of the many and great benefits which our lamented friend was the means of conferring upon the medical school of King's College. In the first place, then, he was the founder of our hospital. Dr. Todd, having been appointed Professor of Physiology in the year 1836, soon saw the vital importance of establishing a clinical hospital in connection with the college. To his clear sense of the need, and to his success in obtaining the sympathy and the aid of very zealous and able fellow-workers with him, we owe it that in the spring of the year 1840 clinical instruction commenced in that old building, now soon to be entirely replaced by the more commodious and imposing structure, which is rapidly approaching completion.” Dr. Johnson went on to say that Dr. Todd was, with the late Bishop of London, the originator of St. John's House Training Institution for Nurses. This institution supplied the hospital with a very efficient staff of nurses and lady sisters, and the hospital in its turn afforded to St. John's House the means of training its nurses, many of whom were annually sent out to private patients in all parts of the country. Another foundation which had exerted an important influence upon the college and upon medical education in general, was that of medi-

cal scholarships. These were first established in King's College, and their establishment originated with Dr. Todd. The Warneford scholarships, which were intended to encourage an extended preliminary education amongst students preparing for the medical profession, were always considered by Dr. Todd to be in the highest degree beneficial. Another important element in the arrangements for medical education in that college, which originated with Dr. Todd, was the establishment of the office of medical tutor. The lecturer continued:—"I have referred to some of the results of Dr. Todd's energy and influence while he was working amongst us here. But it was as a teacher of physiology and clinical medicine that he conferred the greatest benefit upon his pupils and upon the college. Few teachers have ever possessed in an equal degree the power of exciting the interest and of winning the confidence and the affection of their pupils; few men have ever exerted themselves so much to promote the welfare of those whom they have taught; few teachers have had the proud satisfaction of seeing so large a number of their pupils pursuing a career of usefulness and distinction. This is not the time or place for the discussion of any disputed points in Dr. Todd's therapeutical doctrines. Suffice it to say that those who by the bedside had enjoyed the fullest opportunity for noting the accuracy of his observation, the soundness of his judgment, and the remarkable success of his treatment, were the most ready to declare that his great fame as a physician rested upon a solid basis of true desert."

We are sorry that our space does not allow the fuller mention of these excellent addresses, all of which would well repay the reader.

ANNUAL MEETING OF THE VERMONT MEDICAL SOCIETY.—The Vermont Medical Society met at Montpelier, the President, Dr. E. A. Knight, of Springfield, in the chair. Dr. McCollom, of Woodstock, was appointed Secretary *pro tem*. The Chair appointed, as Committee to present subjects for discussion, Drs. J. Perkins, K. Ross and Smith.

Afternoon.—The Committee reported as subjects for discussion:—1st, Puerperal Convulsions; 2d, Diphtheria; 3d, Relation of Diseases of the Sexual Organs in Females to Insanity; 4th, The External Use of Anæsthetic Agents in Spasmodic and other Painful Affections.

The subject of puerperal convulsions was then taken up, and very fully discussed by Drs. Perkins, Smith, McNab, Allen, Sanborn, Bullard, Knight, Ross and others.

Upon motion of Dr. McCollom, the subject of Diphtheria was next taken up, and discussed by Drs. Ross, Green, Bullard, Smith, Field, Perkins and others.

On motion of Dr. Russ, adjourned till 9 o'clock, Wednesday morning.

Wednesday, Oct. 17th.—The Society met pursuant to adjournment. The Committee on Nominations then reported as follows:—*President*, Dr. B. F. Morgan, of Bennington Centre. *Vice President*, Dr. D. W. Putnam, Greensboro'. *Recording Secretary*, Dr. William McCollom, of Woodstock. *Corresponding Secretary*, Dr. C. B. Chandler, of Montpelier. *Librarian and Treasurer*, Dr. Charles Clark, of Montpelier.

Dr. Clark presented a subscription, for the erection of a monument to John Hunter, in Westminster Abbey, and a committee of one from each County was appointed to act in conjunction with Dr. Clark in procuring subscriptions for said purpose.

Dr. Miles then presented Dr. Goodyear, of Hinesburgh, who exhibited to the Society a very interesting case of diseased hand in his own person; after which Prof. Sanborn interested the Society by a very valuable exposition of his new method of treating non-union of fractured bone (by the silver wire), exhibiting a patient whom he had

successfully treated. Dr. Clark exhibited an enlarged spleen, taken from the body of a lad of 15 years, and weighing $7\frac{1}{2}$ pounds.

Dr. Chandler, of St. Albans, read a very able essay upon Medical Ethics, and the relative relations of the Public and the Physician.

Dr. Morgan presented the following resolution, which was adopted :

Resolved, That the thanks of the Society be tendered to Dr. Chandler for his very interesting paper, and that he be requested to furnish a copy to be deposited in the Archives of the Society.

Professor Sanborn presented the following resolution, which was adopted :—

Resolved, That the delegates to the Medical Colleges be instructed by the State Society to be present at the examination of the candidates for the Medical Degree, and examine specifically as to the fulfilment in each case of the requirements of the American Medical Association, and report annually to the Society.

Afternoon.—The Committee on Credentials reported the names of the following gentlemen, who were elected to become members of the Society :—Dr. C. M. Brigham, Pittsfield ; Dr. S. Belknap, Barnard ; Dr. J. Morgan, Swanton ; Dr. B. W. Carpenter, Burlington.

The next Semi-Annual Meeting was appointed at Rutland, and the Secretary was instructed to notify members of the time.

After hearing the Treasurer's Report, which showed a very flourishing state of the Society, adjourned till 7, P.M., in the evening, when the Annual Address was delivered by Dr. E. A. Knight, in the Representatives' Hall.

The address of Dr. Knight is universally spoken of as an effort of exceeding merit, and as having been delivered with much grace of elocution.

LECTURES ON BOTANY.—By reference to the proceedings at the semi-annual meeting of the Governors of the College of Physicians and Surgeons, it will be seen that a debate took place on the admission to examination of a number of candidates, who were deficient, in their schedules of qualification, of tickets of attendance on Botany. We believe now that there exists no excuse for non-attendance on this course (one that is demanded in almost every British and European continental school), as lectures on it are delivered at the University of Laval and McGill College, and will be at the Montreal School of Medicine, for the first time this winter. We desire to place students on their guard in respect to the course, for no one will be admitted to examination for the future who does not present it.—*British American (Montreal) Journal*.

CHROMIC ACID IN SYPHILITIC VEGETATIONS.—Dr. Hairon, after describing the advantages derivable from the chromic acid in certain forms of granular eyelid, observes that the trials he has made of the acid, as recommended by Marshall and Heller, in syphilitic vegetations, have been followed by the most complete and rapid success. The application is never attended with pain or reaction, notwithstanding the rapid destruction of tissue that takes place.—*Jour. Mat. Med. from Annales et Oculiste*.

JOHN HUNTER.—The Council of the Royal College of Surgeons have caused a beautiful memorial tablet to be placed over the site of the

grave of Hunter, now resting in Westminster Abbey, with the following inscription:—

“Beneath are deposited the remains of John Hunter. Born at Long Calderwood, Lanarkshire, N. B., on the 13th of February, 1728. Died in London on the 16th of October, 1793. His remains were removed from the Church of St. Martin's-in-the-fields to this Abbey on the 28th of March, 1859. The Royal College of Surgeons of England have placed this tablet over the grave of Hunter to record their admiration of his genius as a gifted interpreter of the divine power and wisdom at work in the laws of organic life, and their grateful veneration for his services to mankind as the founder of scientific surgery.”

This inscription is deeply cut in brass, of a Gothic design, inlaid in a slab of polished red granite, and presents that chaste and elegant appearance for which the Messrs. Hardman, of Birmingham, who executed the work, are so distinguished. Mr. Weekes, the eminent sculptor, is progressing favorably with the model of the statue, which is to be placed in the Hunterian Museum.—*London Lancet*.

SWALLOWING TEETH.—In the *Dental Cosmos* for March, Dr. Foster reports a remarkable accident of swallowing teeth. He says:—“A gentleman of this city (Wilmington), 35 years of age, sanguine temperament, swallowed his artificial teeth at midnight on Wednesday. Physicians were called in, who fished for them, also tried the usual remedies, but all to no purpose. It was then concluded to let Nature take her course (not doubting in the least that *her* course would be *death* to him), when, to the astonishment of all, and his most unbounded delight, after a very painful and laborious stool, he found himself in possession of them again. This did not take place until the following Monday, making the *round trip* in five days.” The plate was quite heavy, to which three teeth were attached.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, OCTOBER 20th, 1860.

DEATHS.

	Males.	Females	Total
Deaths during the week,	38	46	84
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	33.4	32.7	66.1
Average corrected to increased population, . . . . .	..	..	73.8
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infan.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
16	1	7	2	0	0	1	4

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.203	Highest point of Thermometer,	58°
Highest point of Barometer,	30.432	Lowest point of Thermometer,	33°
Lowest point of Barometer,	29.894	General direction of Wind,	N. E. & Westerly.
Mean Temperature,	44° 5	Whole amt of Rain in the week . . . . .	..

Deaths in Boston for the week ending Saturday noon, October 20th, 84. Males, 38—Females, 46.—Accident, 1—apoplexy, 3—inflammation of the bowels, 4—congestion of the brain, 1—disease of the brain, 2—inflammation of the brain, 2—bronchitis, 2—burns, 1—cholera infantum, 1—consumption, 16—convulsions, 3—croup, 4—cyanosis, 1—debility, 3—diarrhea, 2—diphtheria, 1—dropsy, 2—dropsy of the brain, 2—dysentery, 1—scarlet fever, 7—typhoid fever, 4—gastritis, 1—imperforate anus, 1—inflammation (of the hand), 1—disease of the heart, 2—disease of the hip, 1—insanity, 1—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 2—marasmus, 2—paralysis, 2—peritonitis, 1—teething, 1—unknown, 3.

Under 5 years, 33—between 5 and 20 years, 6—between 20 and 40 years, 21—between 40 and 60 years, 12—above 60 years, 12. Born in the United States, 55—Ireland, 24—other places, 5.

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CASES OF VARIOLA IN THE BOSTON SMALLPOX HOSPITAL.

(Read before the Boston Society for Medical Observation, Oct. 16th, 1860, and communicated for the Boston Medical and Surgical Journal.)

BY DAVID W. CHEEVER, M.D.

Of 97 cases of variolous disease, received into the City Smallpox Hospital between July, 1859, and June, 1860, there were 47 of confluent smallpox; 20 of discreet smallpox, and 30 of varioloid. Two other cases, sent there as fit subjects for a smallpox hospital, were affected with erythema papulatum, and measles, respectively. Sixty-seven patients—a little over two thirds of the whole number—had true smallpox.

Death took place in 14 cases. In 10, it occurred either during the height of the disease, or as a direct sequence of the process of maturation. Hæmorrhage precipitated a fatal result in one instance. Two others were cut off by acute pleurisy, with effusion, when they had already rallied from the smallpox, and were considered convalescent. One old man died from diffused abscesses, on the thirty-eighth day. Two others were detained in bed six and eight weeks from the same cause. Two who died were known to be drunkards; but so were several who recovered, while many more were addicted to moderate stimulation.

The dates of death were as follows:—1 on the fifth day; 1 on the eighth; 3 on the ninth; 1 on the twelfth; 1 on the thirteenth; 2 on the sixteenth; 1 on the seventeenth; 1 on the eighteenth; 1 on the twenty-third; 1 on the twenty-fifth; and 1 on the thirty-eighth day, after the appearance of the eruption.

The average duration of cases in the Hospital was, for varioloid and discreet smallpox, from one to two weeks; for the confluent form, about four weeks.

As to sequelæ and complications—affections of the eyes, beyond a mild conjunctivitis, were not frequent; but perforation of the

cornea once followed purulent ophthalmia. Delirium, almost always impelling the patient to get out of bed, was quite frequent. Mania persisted, through a tardy convalescence, in one instance. (The patient was lost sight of, but probably recovered, as a glass of brandy and water would always temporarily restore sanity.) Extreme aphonia was present in two cases, of whom one died and one recovered; also a diphtheritic condition of the fauces in one, who recovered. Salivation, swelling of the salivary glands, sore throat and hoarseness, were of every degree of severity. There was one case of abscess over the parotid. Cough was not common. The bowels were generally inclined to looseness. Two cases resembled, in their convalescence, typhoid fever, having pain and tenderness in the right iliac region, and lingering in a typhoid state. Boils, generally numerous, followed a large majority of the recoveries from real smallpox. Diffuse, ill-conditioned abscesses, and bullæ filled with dark serum, retarded convalescence many times, and in two instances threatened a fatal result. Bed-sores and sloughs occurred twice. Falling of the hair was pretty common. No symptom was oftener complained of than the pain in the soles of the feet, when the eruption was pushing through the hardened cuticle. The occurrence of menstruation during the disease was generally unfavorable. Ordinarily, the convalescence of those who recovered was good and rapid; but several females and old people left the Hospital permanently broken down. The age of the patients ranged from a few weeks to sixty years.

There were five cases complicated with hæmorrhage. Four died, and one recovered.

CASE I.—C. N. Carroll was attacked by epistaxis, which was finally restrained by plugging the posterior nares. But the eruption flattened and became livid, and he died in a wandering delirium, on the fifth day. This patient's aspect was livid and feeble, when brought in, but the eruption, though copious, was, before the hæmorrhage, well out and of a good color.

CASE II.—John Kehler, a vigorous young man, in whom the disease promised to assume a very sthenic form, had a large hæmorrhage from the bowels on the sixth day. The pock flattened, and he died on the ninth day.

CASES III. and IV.—Mary McGelly and Mary Gowen both had profuse menstruation soon after being attacked with confluent smallpox, and died on the ninth and seventeenth days, respectively; the latter having also, at the last, hæmorrhage from the bowels. (Miss ———, seen in private practice, died also after profuse menstruation, before maturation, and with the eruption looking like a sprinkling of whortleberries.)

CASE V.—Mary King, brought from a wretched shanty where every circumstance had been unfavorable; moved at the height of the disease, and weakened by profuse menstruation, contrary to expectation, finally recovered.

The coincidence of the vaccine disease with variola in two cases, offers some points of interest.

CASE VI.—Mary Harrington, aged 14, was admitted Sept. 26, 1859. The eruption appeared on the 22d inst. She was vaccinated, for the first time, between the 15th and 17th, she cannot recall the day. She had two brothers with smallpox in the Hospital, and to their influence she had been exposed at home; John, who broke out on the 9th, and Jerry, who broke out on the 16th inst. She had then been exposed at least one week before she was vaccinated; and the smallpox broke out on her from five to seven days after vaccination. On her admission, the smallpox eruption was four days, and the vaccine vesicle nine or ten days old.

The variolous eruption was thick and even confluent on the face; copious on the limbs, and mingled with large, flat bullæ. There were two well-marked, flattened, milky-white vaccine vesicles on the arm; but the areola was small, and the soreness slight. The smallpox went through all its usual stages. There was no favorable modification from the vaccination. The pustules filled imperfectly; the child was feeble and upheld by stimulants; the scabbing of the pustules was slow, and convalescence quite protracted.

CASE VII.—William W—— was admitted Feb. 14th, 1860. Vaccinated, for the first time, Feb. 9th. The next day had feverishness, headache, and pain in the back. The eruption of smallpox appeared on the 12th. On his admission, the variolous eruption was two days, and the vaccination five days old. Though so recent, the vaccination showed itself in three *pustules*, which, though in advance of the rest of the eruption, assumed more and more the appearance of smallpox pustules, as the disease went on. His sickness was not at all moderated by vaccination. The disease was confluent; the pustules flattened, and the throat and mouth were severely affected. With free stimulation he went through the period of maturation, and from the sixteenth to the twentieth day, appeared convalescent. But on the twenty-first and twenty-second, had acute pleurisy, and died, with a large effusion, on the twenty-third.

It is right to add that this patient was first treated in Worcester, hydropathically, with packing in cold, wet sheets, and then brought to Boston in the night, and carried to the Hospital.

In these two cases vaccination had not, perhaps, sufficient start of the smallpox. Numerous instances of the co-existence of variola and vaccinia are recorded. Willan says, that when a person is inoculated with vaccine and variolous matter, within a week of each other, both inoculations take effect, and each pursues its course. Brusquet has given sixteen cases, in which the two diseases co-existed, and, in all, the patients died.

Yet the following case not only proves the protective power of

vaccination, but that it needs but a short start of the period of exposure to smallpox, to be effectual.

CASE VIII.—Mrs. Costello and an infant child were admitted in August, 1859. The child was vaccinated on the 25th of August; the mother broke out with smallpox on the 27th, and had the disease in the discreet form. The child nursed, and remained in bed with its mother, all through her sickness. On its admission to the Hospital it had good vaccine vesicles, which ran a regular course, and it was otherwise healthy. On the 30th inst., it broke out with a fine, papular eruption, resembling that of scarlatina, which faded on the second or third day. On Sept. 4th, a few pimples appeared, which advanced to vesicles, and then scabbed irregularly, and dried up like varioloid. It was not sick at all.

None of the nurses or attendants contracted the disease. All were re-vaccinated, or had had varioloid, but one. On him vaccination, often attempted, had always failed, nor had he ever had the disease in any form; yet, although constantly exposed, and handling the sick, he escaped free.

Instances enough were afforded of the loss of the protective power of vaccination through time. Of course, the thirty cases of varioloid were all examples of imperfect protection. And in many other cases (we have not the exact number at our command), more or less perfect vaccine scars existed. Even the severer form of the disease attacked those with good marks of vaccination. In these cases vaccination had been performed in childhood, from twenty to forty years previous to the attack of smallpox.

CASE IX.—Frank Francis, aged about 24 or 25. Had a good vaccine scar. Yet he suffered from confluent smallpox, with a very slow convalescence; being in bed six weeks, with abscesses, bed-sores, &c. Finally recovered.

CASE X.—Thomas H——, aged 56; vaccinated in childhood, and has a very distinct and *foveated* cicatrix. Confluent smallpox and delirium tremens. Severely sick; in bed about three weeks; and had an abscess in right hypochondrium. Recovered, but was left weak, and badly pitted.

CASE XI.—Maria K——, aged 25; was vaccinated in childhood, and has a good cicatrix. Confluent smallpox; cough, sore throat with membranous exudation; diarrhoea, and lingering convalescence in a typhoid state. Ultimately recovered.

It has been asserted that vaccination always protects enough to save life, even though the subject may go through confluent smallpox. Though generally true, yet such has not been our experience in every instance.

Carroll (Case I.), who died on the fifth day of confluent smallpox, which became livid and flattened in consequence of hæmorrhage, had *two*, good, vaccine cicatrices.

Still more marked, as a case of death from smallpox alone, is the following.

CASE XII.—William Foy, aged 30; had a good vaccine cicatrix of childhood. Not a man of intemperate habits. Confluent smallpox; no complications. Surface generally dusky, and even livid; flattening of the eruption; delirium. Very offensive maturation, with a sanious discharge from beneath the scabs. Death on the seventeenth day, in a state of universal suppuration and decomposition.

It has been well said that, "a vaccine scar proves only that protection has once existed." A foreign authority even goes so far as to say that the perfectness or imperfectness of the scar has no influence on the disposition to contract smallpox.

The statistics of the epidemic of smallpox at Berlin, from 1857 to 1859, give us the number of cases at various ages; the percentage of deaths in the whole number, and the percentage of deaths among the vaccinated, and among the not vaccinated. The whole number of cases is 5634; and of deaths, 499. Of the 499 fatal cases, 242 *had been vaccinated*. While the mortality of all was thus about eight per cent., the mortality among the vaccinated was five per cent. It should be borne in mind, however, lest we think too lightly of vaccination, that the mortality of those never vaccinated was thirty-four per cent. By these tables we learn, that, after the fifth year of age—and still more after the tenth—when the majority of the population has been vaccinated, the cases become less frequent. After the fifteenth and twentieth year, cases augment, reaching the maximum between twenty-five and thirty. The mortality among the vaccinated, which was almost nothing from five to twenty years of age, after that gradually increases, with the diminished protective power of vaccination.

Thus vaccination had partially worn out in very many; and completely worn out in a good many, as shown by the deaths.

A physician in this vicinity has sought to prove, by statistics based on 500 and odd cases, that vaccination does not wear out in time. But statistics based on some thousand cases, in the *Archives Generales*, prove just the reverse. So we must not rely on figures alone, but on general experience, which certainly has taught us, that the importance of re-vaccination has not been enough insisted on. Late epidemics, indeed, have proved the need of *compulsory* vaccination and re-vaccination.

Two causes chiefly contribute to the permanence of smallpox among us.

First, The large number of children, born and living here, whose vaccination is neglected by their parents, until the public school certificate renders it necessary.

Second, The coming to, and residence in the city, of many adults from the back districts of Maine, Vermont, &c., who have never been vaccinated at all.

ON THE ALTERATION OF PITCH OF CARDIAC MURMURS BY
CONDUCTION THROUGH THE VARIOUS MEDIA COMPOS-
ING THE THORACIC ORGANS AND WALLS.

BY SYDNEY RINGER, LATE PHYSICIAN'S ASSISTANT AT UNIVERSITY COLLEGE
HOSPITAL, EDINBURGH.

IN a paper published in the Proceedings of the Royal Society,* I have endeavored to show that the pitch of sound is altered by conduction. The nature of the alteration varies with the conducting medium. The following is a summary of the conclusions there arrived at by experiment:—

That porous substances, such as wood or bone, lower the pitch in proportion to their porosity. All other solids, such as iron and glass, raise the pitch.

Fluids raise the pitch.

Fluids in motion raise it more than fluids at rest.

Solutions in water raise it more than pure water, and in proportion to the strength of the solution.

Minute particles suspended in water raise it more than either pure water or solutions.

Gases raise the pitch slightly.

The heart's substance lowers the pitch.

Cellular tissue raises it.

All the above altered the pitch in proportion to the amount of the conducting medium listened through.

In the following paper it is intended to explain the alterations in pitch in cardiac murmurs by conduction by the above principles; but as these alterations in pitch have not hitherto been noticed, it is necessary first to state them.

When a murmur, conducted either through the heart's substance or the sternum, is listened to, the pitch is found to be lower than at the point of production. Thus an apex murmur is found to have its pitch lowered when listened to at either the ensiform cartilage or at the base of the heart; while a base murmur is found to be lowered in pitch when listened to at the apex or ensiform cartilage.

Should there, however, be effusion into the pericardium, the very reverse takes place of what is stated above; the pitch being then raised, instead of lowered, at the different points named.

Again, a murmur generated at the base, at either orifice, is found to have its pitch raised at the second cartilage to which the vessel in which the murmur is generated runs; whilst, on the other hand, it is notably lowered at the second cartilage on the opposite side. Thus, should it be an aortic murmur that is being listened to, the pitch is found to be heightened at the second right, and lowered at the second left cartilage. Should it be a pulmonary murmur, the reverse is the case.

* Proceedings of the Royal Society, January 26, 1860.

Any murmur heard through the medium of air-containing lung is found to have its pitch heightened by the conduction.

The cause of the lowering of the pitch when heard through the medium of the sternum, or heart's substance, is explained by the property they possess of lowering pitch by conduction, which has been shown to be the case in the paper I have alluded to.

In effusion into the pericardium, it has been said that the pitch is raised, instead of being lowered, as in the above case. This is due to the property fluids have of raising the pitch, and was well illustrated in the following case:—A patient suffered from extensive effusion into the pericardium; also from a loud mitral regurgitant murmur. The pitch of this was found to be higher at the base and at the ensiform cartilage than at the apex. As the fluid became absorbed, as ascertained by percussion dulness, so did the distance to which the pitch was raised, beyond that again falling. Thus, when the fluid reached as high as the second rib, the pitch was found to be raised to that point; but when it fell to the third rib, the pitch was still found to be raised as high up as this; but, on listening higher still, the pitch fell again. After the fluid was considerably absorbed, the only direction in which the pitch was raised was in passing inwards to the ensiform cartilage (the patient being in the erect posture). On placing the patient in the recumbent posture, and depressing the upper part of the chest, at the same time elevating the lower, thus causing the fluid to gravitate away from the apex and ensiform cartilage, the pitch was found to be lowered in passing to the ensiform cartilage. On restoring the patient to her first position, the pitch again became higher at this point than at the apex.

The elevation of the pitch of a basic murmur at the second cartilage, to which the vessel generating it runs, is also due to the fluid in the vessel. It may be objected that the distance is too short; and also that, as the blood is in motion, the murmur would be carried, and not conducted, by the fluid. The following experiments, however, show that these objections are not valid:—

Into an India-rubber tube, thirteen inches long and three fourths of an inch in diameter, a funnel was inserted. Immediately below this a small opening was made, just large enough to admit the end of a tuning-fork. Water was kept constantly running through this, and the stethoscope (covered with a diaphragm) was applied to different parts of the tube. By this method the pitch was found to be most appreciably raised the further from the fork the stethoscope was applied to the tube. The elevation of pitch was easily recognized at the distance of two and a half inches. Next, an aorta was tied to the mouth of a tap, and an artificial murmur produced by causing a constriction of the vessel by a piece of twine tied round it. The pitch of the murmur so produced was decidedly raised the further it was heard along the vessel from

the point where the sound was generated. It was easily appreciated at a distance of two and a half inches.

To set the question quite at rest, a tourniquet was placed over a man's femoral artery, immediately below Poupart's ligament, and an artificial murmur was thus produced; this was found to rise in pitch in passing down the course of the vessel. A well-marked difference was noticed at a distance of two and a half inches. The intensity of the murmur quickly diminished in passing to the right or left of the vessel, the pitch at the same time being rapidly raised, which was due to the interposition of the integuments; but this interposition could not be the cause of the rise of the pitch in the course of the vessel, as the murmur could be heard in that direction at a distance of at least six inches, whilst it was completely lost at a distance of two inches to either side of the vessel. Thus the murmur must have been conducted by the blood; whilst the same thickness of the integuments was over the artery at the lower as the upper point listened to, for both points were above the place where the sartorius muscle crosses it. Indeed, in the paper alluded to, I have shown:—

1. Fluids at rest raise the pitch.
2. Fluids in motion still more.
3. Solutions raise it more than water.
4. Fluids holding minute particles in suspension raise it still higher. Now all these conditions are found in the blood.

The reason the pitch is lowered when the murmur is listened to at the second cartilage opposite to that to which the vessel producing the murmur runs, is, that it is conducted through the sternum, which has been shown to lower the pitch.

In passing up to the sternal notch, the pitch of a basic murmur is found to rise. Here, probably, two causes act:—First, the vessel which conducts the sound is nearer this point; and, secondly, lung to some extent intervenes, which raises the pitch, gases having this tendency.

It has been stated above, that a murmur heard through lung is found to have its pitch raised. This is due to the air it contains. This has been proved elsewhere, but the following experiment also shows it. A patient presented himself with a loud mitral murmur, audible over the entire chest. A point where much lung, and only lung intervened, was chosen, and the stethoscope applied to this point. The patient was directed first to expire deeply, and the pitch ascertained. He was then told to inspire to the utmost, and retain it, whilst the pitch was again ascertained; and under the last condition it was found most appreciably raised. The only altered condition here was an increase in the amount of intervening air.

The following is the diagnostic application of the above facts:—When a murmur is very intense, it is audible over the entire heart

region, often rendering it difficult to decide whether there is but one murmur audible at the other orifices merely by conduction, or whether two original murmurs exist. The point of greatest intensity will decide one; and, if percussion dulness excludes the possibility of fluid in the pericardium, and the pitch of the less intense murmur heard at the other orifices be higher than that of the most intense, this is indubitable proof of the existence of a second murmur.

In cases where tumors simulate in their percussion dulness, fluid in the pericardium, should a murmur exist, the tumor being solid would probably lower the pitch; should it be, however, fluid, the pitch would be raised by conduction through it. Again, it is often difficult to decide whether a basic murmur be aortic or pulmonary, or both; it being heard with equal intensity at both second cartilages. If aortic only, the pitch will be heightened at the second right cartilage, but lowered at the second left, and *vice versa* in the case of a pulmonary murmur; whilst, should both exist, the pitch will be heightened at both cartilages.—*Edinburgh Medical Journal*.

ARTIFICIAL LACTATION.

IN the *Transactions of the Indiana State Medical Society*, at the Annual Session, held May 17 and 18, 1860, Dr. CHARLES M. WETHERILL has published a paper upon the above interesting subject. The writer, after noticing the different chemical compositions of milk, and the variations between that of the human female and that of animals, makes the following suggestions:—

For an artificial human milk, I would propose the substitution of *milk sugar* for cane sugar; an addition to give to the casein of cow's milk the characteristics of that of human milk; attention to the kind and proportion of mineral salts, and to the nature of the butter. I think that a great deal may be done with our present knowledge, not only in making the mixture, but in preparing the cow's milk by a proper regulation of the animal's diet. The saline ingredients of milk are small in quantity, and not so complicated in the proportion of their mixture as to preclude the hope of obtaining by the data afforded by analysis, an artificial human milk from cow's milk by the proper additions.

In respect to the butter, which is said to be more oleiniferous in human milk, a great deal is to be expected from proper attention to the diet of the cow.

I look forward to the substitution of the cow for the wet nurse. Over the diet, temper, and life of the animal we have complete control. Placing her in a healthy, well-ventilated stable, and furnishing her with exercise and the proper kind and proportion of food, she may become a perfect and scientific milk machine. By paying attention to these points, as well as to the fact that some cows

are by nature as well as by diet butter cows, while others excel in cheese, we can doubtless obtain, with but little difficulty, milk containing not only casein of a nature more suitable to the infant, but an oleiniferous butter in proportion adapted to the dilution necessary for transforming cow's milk to artificial human milk. It is well known that oily food renders the milk more butyraceous, and Boussingault's experiments show that cows fed exclusively upon potatoes yield a more caseous milk than with any other diet. The nature of the casein in the respective milks is of great importance. To this ingredient doubtless is due much of the injury received by infants nourished upon cow's milk. Simon found the dry caseous precipitate from human milk to be yellowish-white, brittle, hygroscopic in the air, insoluble in alcohol, but yielding a troubled foamy fluid with water; from which it was completely separated by acetate of lead, tannin and chloride of mercury, and incompletely precipitated by acetic acid and solution of alum. The casein of cow's milk was with more difficulty soluble in water, and on drying became tenacious and horn-like. Dumas found these two kinds of casein constituted exactly alike.

According to Simon, Elsasser and Lehmann, the casein coagulum from human milk is always very loose and gelatinous; while that from cow's milk is very dense and lumpy. Lehmann supposes that the gelatinous behavior of the former milk is determined by its more alkaline nature, having observed that acid human milk yields a denser coagulum than a more alkaline milk; while a more alkaline cow's milk gives a looser coagulum than acid milk.

I cannot think that the casein of cow's milk differs essentially from that of the woman.

I have performed the following experiments upon the milk of a cow eleven months after calving. Three hours after milking, the liquid was taken from the ice chest and brought to the temperature of 90° Fah. The milk reacted distinctly alkaline to litmus paper. It was divided into eight portions of 100 grains each, with the following additions:

No. 1. Pure milk.

2.	do.	with eq. quantity water of 90° Fah.		
3.	do.	do.	1-4 gr. neut. carb. soda, and 4 grs. milk sugar.	
4.	do.	do.	1-2 gr. do.	do.
5.	do.	do.	1-4 gr. phos. soda,	do.
6.	do.	do.	1-2 gr. do.	do.
7.	do.	do.	1 gr. do.	do.
8.	do.	do.	1 gr. precip. phos. lime,	do.

A piece of calf's rennet* was then added to each portion contained in wine glasses, and kept standing in an atmosphere of 79° Fah. Fifty minutes after the addition of the rennet, No. 1 began to coagulate with a dense curd and slightly acid reaction. Shortly afterwards No. 2, with a looser curd. No. 8 then curdled gradu-

* As the rennet had been kept in salt, and tasted, after washing, quite saltish, chloride of sodium was not added to the artificial milk.

ally, the curd being quite gelatinous. A half hour later than No. 1, the specimens containing phosphate of soda began to coagulate in the order 5, 6, 7. Two and a half hours from the commencement of the experiment, No. 3 began to show signs of a separation of the casein, No. 4 being unchanged.

In all of the portions of milk containing the above-mentioned salts, the curd was much looser than in Nos. 1 and 2. In the cases of the carbonated and phosphated alkali, it was quite gelatinous, and with the carbonated, the separation was by far the tardiest, and the casein by far the loosest. The smallest quantity of this salt added, gave a milk containing 1·8 of one per cent. A much smaller quantity would retard the separation of the casein by rennet. I noted that the slower the coagulation, the more gelatinous was the coagulum.

I infer from these experiments a beneficial effect to be produced upon the casein of the cow for the purposes of artificial human lactation, by the addition of small quantities of appropriate salts. I was surprised at the degree to which the phosphate of lime retarded the coagulation, although it is said that casein will hold in solution 6 per cent of this salt.

CONTRIBUTIONS TO THE PATHOLOGY OF DIABETES MELLITUS.

THE *Dublin Quarterly* for August, 1860, contains a translation of an article with the above title, by Rud. Leubuscher, published in *Virchow's Archives*, Vol. XVIII.

The following results were derived from careful observation and experiments upon a girl 19 years of age, who entered the hospital of Jena, with diabetes and phthisical symptoms:—

“1. The temperature of the skin was, during the entire period of the patient's stay in hospital, below the normal standard, being generally only 95° Fahr., and, even under the influence of an acute affection, which finally proved fatal, it did not exceed 96° Fahr. The difference in the nature of the food appeared to have less effect on the variations of bodily temperature than the existing temperature of the room.

“2. The amount of urine excreted does not correspond to the quantity of drink ingested, but exceeds it many times. This was particularly striking one day, when six ounces of red wine, three ounces of rectified spirit, and 1000 cubic centimètres of water, were taken, the quantity of urine amounting to only 3300 cubic centimètres—less than usual. But the desire of patients to deceive in general renders this circumstance uncertain.

“3. When the food is mixed, and abounds in starchy matter, water being at the same time freely taken, the quantity of chloride of sodium and of urea excreted in twenty-four hours considerably exceeds the normal proportion. Great amount of sugar.

“4. A predominance of meat increases the quantity of urea, and

diminishes that of sugar, without essentially influencing the amount of common salt.

"5. The free use of milk with mixed diet does not produce any change in the quantities of sugar, chloride of sodium and urea excreted.

"6. The ingestion of alcoholic drinks, with predominant protein-food, considerably increases the excretion of sugar; the quantity of urea is diminished; the proportion of chloride of sodium undergoes no change. Dr. Rosenstein* has obtained a similar result, but states that he observed that the excretion of sugar becomes relatively less in proportion as the amount of alcohol in the wine increases. In my case the increase of the sugar is the more valuable, on account of the simultaneous administration of nitrogenized food, which usually has the effect of diminishing the quantity of sugar.

"In all such experiments a great difficulty exists, which unfortunately cannot be avoided, although it may sometimes have a disturbing influence on the results obtained: I allude to the restraint which it is necessary to exercise over the patients, and which has a tendency to excite uneducated persons to opposition, deception and evasion of the physician's directions, and in the most favorable case produces in the patient a state of physical tension and excitement, which may easily modify the metamorphosis of tissue.

"A second series of experiments was undertaken to ascertain the influence of various medicines. The patient got mixed diet, with plenty of meat, about a pint and a half of good brown beer, but was no longer confined; therefore the quantity of drink taken could not be ascertained with perfect certainty.

"The following were the results:—

"7. Iron given in the form of lactate, in doses at first of four, and subsequently of six grains, from the middle of November to the middle of December, afforded a mean quantity of sugar, the urea and chloride of sodium remaining the same, and the patient continuing in general good health.

"8. Pepsin, in doses of ten grains twice a day, from the middle of December to the beginning of January. The quantity of urine excreted was less, its specific gravity was higher, reaching to 1.044; all the constituents—sugar, urea and common salt—were both relatively and absolutely increased. The general health was, at the same time, uninterruptedly good.

"9. Benzoïn, given in daily doses of about six or eight grains, as benzoic acid, benzoate of ammonia, and benzoate of soda, from the middle of January to the middle of February, had no decided effect on the excretion of chloride of sodium and urea; the amount of sugar continued moderate. The principal object, however, in giving the benzoic acid, was to trace its change into hippuric acid. * * *

"The general state of the patient during all these experiments, which were continued to the end of March, was satisfactory; the only temporary interruption to health was caused by a furuncle on the nates."

But, on the 30th of March, the patient, after violent mental emotion and exposure to cold, was seized with shivering, and vom-

ited once. She died on the first of April, the symptoms under which death took place being chiefly indicative of poisoning.

“As in other dyscratic conditions the theory suggested itself, that under the favoring influence of an acute local affection (in this instance increase of the pulmonary disease), a metamorphosis specially hostile to the nervous system had occurred in the blood. The rapid increase of the pulse, and its enormous frequency, were striking; which, combined with the diminished temperature of the skin, seemed to point to exalted activity in the domain of the sympathetic respiratory nervous system, with paralysis of the cerebro-spinal, if it is allowed to make such an application in a given case. Other observers (Lomnitz, Rosenstein) have stated, on the contrary, that in intercurrent acute diseases of diabetic patients, the temperature of the body attains much higher degrees than in non-diabetics, while, under ordinary circumstances, it sank, with these authors too, below the normal standard.

“The occurrence of vomiting, and the subsequent drowsiness, likewise indicated poisoning, in consequence of a decomposing process in the blood. This assumption was supported by the nature of the urine; and the important change in its constituents during the last few days—namely, its comparatively low specific gravity, the increased quantity of albumen, and the striking diminution of the sugar and augmentation of the urea. Had the formation of sugar been so moderated, or was it merely the excretion of that principle which was diminished, and had the non-excreted portion undergone other metamorphoses? How, then, was the increased amount of urea to be explained, and might the excretion of albumen be considered as the result of renal disease? .

At the examination, performed twelve hours after death, there was found tubercular disease of the lung, with inflammation of the stomach and small intestine. The kidneys were enlarged, firm, and deficient in blood.

“Accurate examination of the blood exhibited, under the microscope, a large quantity of free fat and white blood-corpuscles. After the coagulable portions were separated by boiling, the presence of a considerable quantity of sugar was demonstrated in the filtered fluid, both by Trommer’s test, and by fermentation. In like manner, the existence of urea was demonstrable in a portion from which the sulphuric and phosphoric acids were previously removed by means of barytes, by precipitation with a solution of nitrate of mercury, and in another evaporated portion the characteristic crystals of nitrate of urea appeared on the addition of nitric acid. Some of the white bloody fluid, which stood in a test-glass above the red portion, on being agitated with ether, was almost completely dissolved. After the evaporation of the ether, cholesterin, margarin and leucin remained behind. In the decolorized blood, which had an alkaline reaction, free ammonia was not demonstrable. The filtrate of the expressed hepatic fluid contained much sugar.

“The foregoing case coincides remarkably with the instances already repeatedly observed, of the existence of milky blood in diabetes, and where, by some unknown process, the metamorphosis of fat, as also of sugar, is impeded. Death took place under the simultaneous increase of the pulmonary affection, and accession of gastri-

tis and enteritis; and it is probable that these two processes, especially the first, the disturbance of respiration, which, at the same time, attacked both lungs, materially promoted and augmented the alteration of the blood. It is probable that the important change in the mass of the blood did not occur until the recent attack, as the opening of an abscess some months previously exhibited no external sign of any particular alteration of the blood; it would have struck us, if it had attained so high a degree as we found on the *post-mortem* examination; the patient, too, had always felt very well up to the date of her last illness.

"But if the changes in the lungs and intestinal mucous membrane found on dissection, promoted the metamorphosis of the blood, they certainly were not its sole cause, but the violent mental emotion and exposure to cold were quite competent to have, of themselves, established the process; indeed, proportionably slight causes are sufficient in dyscratic conditions to produce the most extensive decompositions in the vital fluid.

"The nature of the blood also satisfactorily explains the decrease of temperature of the skin and the phenomena of somnolence, under which the patient sank, for the obstruction of the capillaries with fat must have constituted an impediment to the circulation, and to the metamorphosis of tissue. But it must be acknowledged that it is not easy to explain the change of the urine with respect to the albumen and the amount of urea, in reference to which we can form only uncertain conjectures."

SLOW POISONING BY PREPARATIONS OF LEAD; ITS INFLUENCE ON THE OFFSPRING.

THIS subject has been made the study of M. Constantine Paul, of Paris, and the results of his observations are deposited in the Archives Générales de Medecine. We condense a résumé of the work as given in the *Gazette Hebdomadaire*.

The attention of M. Paul was first directed to the hereditary transmission of the effects of inorganic substances introduced into the system, by the case of a woman who had given birth to three healthy children before she became exposed to the influence of lead; but who, after she had become exposed, had, in ten pregnancies, eight miscarriages, one stillborn child, and one born at full term, but which died at the age of six months. The investigations which M. Paul instituted to ascertain whether the lead could have been the cause of this mortality in children, led him to collect eighty-one observations, principally of women. From these he considers himself justified to affirm: "that the saturnine intoxication manifests itself not only by the ordinary accidents which we know, but also by the death of the fœtus, or the premature birth of the infant, whether it be the father or the mother who has been the subject of lead poisoning."

This fact is obvious, says the author:

"1. From the occurrence of metrorrhagias in women who have

had a suppression of the menses during one or more months, with all the signs leading to a suspicion of pregnancy, as far as these signs at so limited a period are of avail; 2. From miscarriages at three to six months; 3. From premature births, in which the children were stillborn or dying; 4. From a mortality below the average, during the first three years of infancy."

Here are some of the details. The eighty-one observations of M. Paul gave a number of 123 pregnancies. In these were: 64 abortions; 4 premature deliveries, one at the seventh, and the other at the third month; 5 stillborn; 20 children died in the first year; 8 in the second year; 7 in the third year; 1 died at a later period: 14 living children, of which only 10 are over three years of age; 15 hæmorrhages, belonging doubtlessly to abortions at a very early stage of pregnancy. Thus, in 123 confined pregnancies, 73 children died before accouchement. These figures speak for themselves.

The noxious influence of saturnine intoxication upon the offspring is thus obvious. Another proof is found, when the results of pregnancy before and after the lead-poisoning are compared. M. Paul cites the cases of five women, who, before being subjected to the lead, had together given birth to nine children at full term, and without metrorrhagias, miscarriages, or other accidents. Since they had been exposed to the lead, they represented together 35 pregnancies; among these there were 26 miscarriages; 1 premature birth; 2 stillborn; 5 children died—4 in the first year; 2 are living—one weak and feeble, and the other has not reached its third year.

Again, M. Paul cites the case of a woman who had five miscarriages in so many pregnancies, while she worked in lead, and who, after having changed her occupation, gave birth to a living and thriving child.

The influence of lead poisoning, transmitted by the father to the child, is as clear as that by the mother. It is perhaps less fatal, probably because in the mother the intoxication operates upon the organism, not only at the moment of conception, but during the whole period of gestation.

The aptitude of fecundation does not appear to be modified by the saturnine intoxication.—*Cincinnati Lancet and Observer*.

ON THE UNION OF FRACTURES IN MERCURIO-SYPHILITIC PATIENTS. BY PROF. SIGMUND, OF VIENNA.—A young man in the Hospital of Vienna, while undergoing treatment by means of mercurial inunctions, on account of syphilitic ulcers of the skin, and affection of the bones, met with an injury; as the result of which, he sustained an oblique fracture of the humerus about an inch below the tuberosities, accompanied with considerable contusion of

the soft parts, and extravasation of blood. Cold applications were made use of, and the arm was put up in splints in the usual way; no unpleasant symptom occurred, and consolidation of the fractured bone was complete on the thirty-third day from the receipt of the injury. Around the united ends of the bone there was a very considerable bony swelling; in other respects the form and direction of the limb were quite normal. On the day when the fracture was sustained, the patient had undergone the ninth of a series of fifty mercurial inunctions; this treatment was not discontinued, but was carried on uninterruptedly until the disappearance of the syphilitic symptoms.

Prof. Sigmund has met with five cases where syphilitic patients have sustained fractures while undergoing mercurial treatment. The bones broken in these cases were, the right radius (twice), the left fibula, the left clavicle, and the left humerus. Complete union of the fractured bones had occurred on the twenty-third, the twenty-sixth, the thirtieth, the twenty-second and the thirty-fourth days respectively. In all these cases the results were satisfactory. In none of these cases was the mercurial treatment discontinued, nor was any change made in the diet of the patients.

It is well known that in syphilitic patients no important deviation from the normal course occurs in the healing of wounds of the soft parts. Prof. Sigmund has had occasion to perform numerous and various operations in the syphilitic, and his observations entirely confirm the general opinion.

Prof. Sigmund does not believe that the bones of syphilitic patients, whether or not they have been treated with mercury, are more readily fractured than the bones of those who have not had syphilis, and have not taken mercury.—*Zeitschrift der k. k. Gesellschaft der Aerzte zu Wien.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, NOVEMBER 1, 1860.

PUMPKIN-SEEDS IN TÆNIA SOLIUM.—Kousso and the ethereal tincture of male fern are certainly very efficacious in effecting the expulsion of the tænia; but practitioners should note the results obtained in Algeria by M. Tarneau, a military surgeon. Free ten drachms of pumpkin-seeds from their husks, pound them in a mortar with a sufficiency of sugar, and add to the paste thus obtained a cup of milk. The patient should be put on a very low diet, and be given a small dose of castor oil; on the next morning the pumpkin-seed electuary must be taken at an early hour, and from twelve drachms to one ounce of castor oil two hours afterwards.—*London Lancet.*

It will be remembered by our readers that attention in this country was first called to the employment of pumpkin-seeds, as an anthelmintic remedy, by Dr. J. S. Jones, of this city, some account of his experiments and observations having been published in this JOURNAL, in

May, 1849. Subsequent opportunities for testing the remarkable power of this remedy in cases of tænia, served only to confirm the statements of Dr. J., and at this time it ranks high as a vermifuge. Although it had been mentioned by writers on materia medica, some time previously, as possessing supposed efficacy, its employment in this country, and to a great extent in Europe, dates from the time when first employed by Dr. Jones. From the convenience of the remedy, and its freedom from any unpleasant taste or effects, together with its well-attested powers, it certainly deserves the place it now holds in the list of anthelmintics.

MEDICAL PROGRESS IN ILLINOIS.—Among other resolutions recently passed by the Medical Society of the town of Galesburg, Illinois, were two referring to the confidential character of the relations that should exist between the physician and patient, which we are glad to re-publish, as showing a true appreciation of the position of the medical profession, with reference to the public, and that watchful care over its rights and duties which has been too often neglected in other portions of the country. It will be seen that it is proposed to memorialize the legislature of Illinois for the purpose of calling its attention to these resolutions, and obtaining, if possible, the same statutory provisions which exist in several of the other States. We heartily agree with the hope that has been expressed that the example of the Galesburg Society will be speedily followed by every society throughout the State, and that similar efforts will be made in other States into which these reforms have not yet found their way.

“*Resolved*, That we hold the relation of physician and patient to be of the most private, personal and confidential character; and as such should ever be held inviolate, and as exempt from inquisitorial proceedings as those of the attorney and his client. That in accordance with these sentiments we claim that no person duly authorized to practise medicine and surgery should be compelled to disclose any information which he may have acquired in attendance on any patient in a professional character, and which information was necessary to enable him to prescribe intelligently, as a physician, or do any act as a surgeon.

“*Resolved*, That the statutes of the States of New York, Michigan, Iowa, Wisconsin and Missouri, extending to the medical profession these legal privileges, are founded in justice and good morals, and have a proper regard for the peace of families and the community, and therefore receive our entire approval in meeting the wants of the profession in this State.

“*Resolved*, That at the proper time this Society will prepare a memorial to the Legislature calling attention to these, as we believe, rightful statutory provisions, and ask for such enactments as the several cases herewith presented may require.

“*Resolved*, That we recommend similar action to other medical societies, and we solicit their active coöperation in carrying out the spirit of these resolutions.”

PRIZES FOR 1861. FOR THE MEDICAL PROFESSION.—*American Medical Association*. Two prizes of \$100 each to the best two volunteer communications reported favorably by the Committee. Committee for 1860–61, Drs. Daniel Brainard, Chicago, Ill.; D. L. McGugen, Iowa; M. L. Litten, Mo.; John Evans, Ill.; A. L. McArthur, Ill. Papers must be sent to the Chairman before June, 1861.

Boylston Prizes.—Two, \$60 each, or a gold medal of that value. SUBJECTS—1. *Excision of Joints*. 2. *Diagnosis and Treatment of*

Chronic Pleurisy. Papers must be sent to Dr. Edward Reynolds, Boston, on or before April 1, 1861.

Fiske Fund.—Two, \$100 each. SUBJECTS—1. *Aneurism; its Varieties and their Appropriate Treatment.* 2. *Ozone; its Relations to Health and Disease.* Papers must be sent to Dr. S. A. Arnold, Providence, R. I., on or before May 1, 1861.

Stevens Prize, offered by Alexander H. Stevens, M.D., LL.D.—This prize, consisting of the sum of One Hundred Dollars, will be awarded for the best series of preparations which shall adequately illustrate the Anatomy, Physiology and Pathology of the Larynx. The preparations should be sent in to Dr. Henry Sands, Curator of the College, on or before the first day of March, 1861. The preparations receiving the above prize, as well as those of which honorable mention may be made, will be deposited in the Museum of the College of Physicians and Surgeons, inscribed with the names of the successful competitors.

O'Reilly's Prize to Medical Students.—A premium of \$250 for the Essay which shall be judged the best by competent judges, on the Anatomy and Physiology of the Animal and Organic Nervous Systems. The Essays to be sent, on or before the 1st of March, 1861, to Dr. John O'Reilly, 230 Fourth Street, New York.—*Am. Med. Times.*

MURIATE OF AMMONIA IN NERVOUS CEPHALALGIA.—Professor Barallier, of Toulon, reports that within the last three years he had administered the substance in 259 cases of nervous cephalalgia, and with success in 202 of these. He gives forty-five grains combined with mint-water and syrup of orange-peel, divided into three doses, to be taken at intervals of half an hour, amendment commencing after the first dose, and the third frequently not requiring to be taken. To prove effectual, however, the remedy should not be given at the very commencement of a paroxysm, but when it has acquired great intensity. This agent not only gives relief to the urgent pain of the paroxysms, but, after having been had recourse to on several occasions, diminishes the number and frequency of these. To be of use, it must not be indiscriminately used for every cephalalgia; and the result of the analysis of M. Barallier's experience leads to the following conclusions:—

1. The muriate almost constantly dissipates paroxysms of idiopathic migraine, and of migraine consecutive to too abundant menstruation.
2. It is powerless in the hemicrania which is dependent upon irregularity or suppression of the menses.
3. It is tolerably successful in cranial pains dependent upon disorder of the stomach, and the accidental cephalalgia frequent in women and feeble persons under the influence of sudden changes of the atmosphere, prolonged intellectual labor, or moral emotion.
4. It operates beneficially in cephalalgias consecutive to repeated paroxysms of intermittent fever; those which are observed during the decline of severe fever, and in the course of the irritative period of typhus.—*Bull. de Therap. and Dublin Med. Press.*

A VERDICT OF MANSLAUGHTER AGAINST TUMBLETY.—What we have often thought would occur has occurred at last: not that there might not have existed months ago ample enough grounds for a Coroner's Jury and its verdict, but that a peculiar good fortune seems to have attended Tumblety's proceedings, and secured him an exemption. His good genius

has at last deserted him, and to avoid the consequences of a trial before his compeers and its award, Tumblety has fled to regions unknown; in all probability to the United States, where it is not unlikely, that *with the assistance of the press, which he subsidizes heavily*, he will be permitted again to continue his vocation, reap handsome returns, and send more unfortunate trusting victims to their graves. *Without the assistance of the press, it is impossible that he could have succeeded as he did, and this inquest discloses the fact, that it was in consequence of seeing his advertisements, and believing in them, that the unfortunate man Portmore entrusted his life in his hands, and fell the victim of his credulity.*—*British American (Montreal) Journal.*

MEDICAL LECTURES OF HARVARD UNIVERSITY.—We call the attention of our readers to the notice of the introductory lecture to be delivered on Wednesday next, at 12, M., at the Massachusetts Medical College, by Dr. J. B. S. Jackson, Professor of Morbid Anatomy. With this lecture commences the winter course of instruction, which, with the facilities now afforded, is worthy the attention of students in every portion of the country.

DR. HOLMES'S ADDRESS.—We notice a statement in the Philadelphia *Medical and Surgical Reporter* that copies of the above Address can be had on application to the publisher of this JOURNAL. We are authorized to say that the edition printed has been for some time exhausted, and copies cannot now be had. Probably arrangements will be made for its publication hereafter, in connection with other productions of the author.

It was stated in the last number of the JOURNAL, in connection with Dr. Acland's visit, that the surgeon who performed the first operation with ether was present. It should have been the first *capital* operation. The very first operation was performed by Dr. J. C. Warren.

PROF. W. H. N. MAGRUDER, Baton Rouge, La., is collecting materials for a biography of the late Dr. Drake. All who have any letters or papers, or are acquainted with any facts or incidents, which may be of value in the preparation of such a work, will please address Prof. M. as above.

THE RETIREMENT OF M. RICORD.—M. Ricord has retired from his post as surgeon of the Hospital du Midi. The hospital regulation which requires the retirement of medical officers at the age of sixty, would soon have completed his term of service, but he has chosen a more dignified leave by resignation.

Ricord was born in Baltimore on the 10th of December, 1800, and has held his position in the hospital for nearly thirty years. His opportunities have been unequalled, and his great reputation has been the result of immense labor and observation on the specialty which is so much indebted to him for its development.

Ricord's place, it is said, is to be filled by one whose name is not unknown to syphilography—M. Alphonse Guerin.—*Medical and Surgical Reporter.*

EXAMINATION OF THE SEEDS OF *RICINUS COMMUNIS*.—The Society of Pharmacy of Turin offers a prize of 500 livres for an answer to the following propositions:—

“To determine the quantity and quality of the proximate principles contained in the seeds of *ricinus communis*.”

“To make known the cause of the marked difference which is observed in the mode of action upon the animal economy between the seeds and the expressed oil of the seeds of the *ricinus*. And, to indicate, if possible, the respective action of the divers principles isolated.”

“A specimen of the principles which the author may be able to isolate, should accompany the memoir.”

“The memoir, written in either Italian, French, or Latin, should be sent before the 31st of December, 1861, to M. Chiaperro Francesco, General Secretary of the Society, at Turin.”—*Boucharlat, Répertoire*.

This interesting subject is understood to be offered to universal competition, and the honor as well as the prize for the essay are well worth having. The plant is largely cultivated in our Middle and Western States, and the oil forms a staple commodity. The honor of this essay is therefore quite within the reach of our scientific men.—*American Medical Times*.

HUMANE IMPROVEMENTS IN SLAUGHTERING.—*L'Union Médicale* lately published a valuable report read at the general meeting of the Paris Society for the Prevention of Cruelty to Animals. In this document are described several cruel practices which are of daily occurrence, both during the conveyance of the animals to Paris and the actual treatment of them at the slaughter-houses. It is to be hoped that this publicity will lead to the removal of the evils alluded to. Amongst the suggestions which the report has drawn forth, is one which deserves attention. M. Auber, of Macon, thinks that air injected or blown into an opened vein would bring on instantaneous and painless death; and grounds his belief upon the effect produced upon dogs and other animals by this mode of destruction. He adds that it was customary with the French army at Rome to kill in this humane manner horses unfit for further service.—*London Lancet*.

PROF. J. ADAMS ALLEN, of Rush Medical College, has been appointed to the Chair of *Materia Medica*, in the Chicago College of Pharmacy.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, OCTOBER 27th, 1860.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	40	33	73
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	34.2	35.5	69.7
Average corrected to increased population, . . . . .	..	..	77.8
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infan.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
8	2	5	7	0	0	1	5

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.072	Highest point of Thermometer,	66°
Highest point of Barometer,	30.360	Lowest point of Thermometer,	35°
Lowest point of Barometer,	29.832	General direction of Wind,	S. W. & N.
Mean Temperature,	52°.2	Whole am't of Rain in the week	1.175

Deaths in Boston for the week ending Saturday noon, October 27th, 73. Males, 40—Females, 33.—Accidents, 4—apoplexy, 1—asthma, 1—bronchitis, 1—congestion of the brain, 2—cancer, 1—cholera infantum, 2—consumption, 8—convulsions, 2—croup, 1—cyanosis, 1—debility, 2—diarrhoea, 2—diabetes, 1—dropsy, 1—dropsy of the brain, 1—dysentery, 1—scarlet fever, 5—typhoid fever, 4—gangrene, 1—gastritis, 1—haemoptysis, 1—homicide, 1—insanity, 1—intemperance, 1—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 7—marasmus, 2—neuralgia, 1—old age, 2—pleurisy, 1—premature birth, 4—spine, fracture of, 1—thrush, 1—unknown, 3.

Under 5 years, 25—between 5 and 20 years, 9—between 20 and 40 years, 17—between 40 and 60 years, 14—above 60 years, 8.

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EXISTENCE OF NITROGEN IN PLANTS—ITS ORIGIN IN ANIMALS.

[BY CHARLES T. JACKSON, M.D.]

[Communicated for the Boston Medical and Surgical Journal.]

MANY years ago, while a student of medicine, the writer essayed to prove, by exclusion, that animals derived their nitrogen from food, and that since exclusively herbivorous animals apparently contained as much nitrogen in their tissues as carnivorous ones, he argued that the nitrogenous element of plants must have been overlooked by chemists and physiologists. We were taught in those days that nature produced all the varied products of the vegetable kingdom by means of the three elements, carbon, hydrogen and oxygen, and that animal matter differed from vegetable, owing to the addition of nitrogen. Organic chemistry, then almost unknown, or certainly in its infancy, had not disclosed the fact of the existence of nitrogen in vegetable matters in nearly the same proportions as in those of animal origin. It had, indeed, been observed that cabbages, turnips, and some other plants of the cruciferous order, on putrefaction gave out the sulphide of ammonium, then called hydrosulphuret of ammonia, a fact which pointed to the existence of sulphur and some nitrogenous ingredient in plants of that order, but this was considered an exception to the rule. Notwithstanding the proofs that animals do not derive their nitrogen from the atmosphere by pulmonary or by cutaneous absorption, and that there was no other way by which this element could be introduced except by the stomach, in the form of food, and that animal life could be sustained by an exclusively vegetable diet, the books on chemistry, botany and physiology continued to ignore the existence of nitrogen in plants. At length analytic chemistry reached into the domain of organic products, and Dumas, Cahours, Liebig and others demonstrated that vegetable matters contain nearly the same proportions of nitrogen as

those of animal origin. There still exists a doubt as to the mode of combination of the elements in these two forms of matter, and it is highly probable they will prove additional instances of isomerism. We know, for instance, how readily we can distinguish most animal matters from those of the vegetable kingdom by the simple test of combustion. A portion of animal fibrine, albumen or gelatine can thus at once be distinguished from any vegetable product, the so-called animal odor in the smoke being readily recognized. A single fibre of cotton, or of linen, may thus be distinguished from one of silk or of wool, the two last giving the odor peculiar to animal matter, on combustion, while the two former give the smell of burning wood or paper.

Animal matters, on being heated to a temperature sufficient to decompose them, break up chiefly into nitrogenous compounds, while vegetable matters of identical composition break up under the same circumstances into hydro-carbons and water. Here, then, is a curious and important department of organic chemistry for further examination. Recent experiments on the production of oils, paraffine, and numerous other valuable products of decomposition of vegetable matters at regulated temperatures, have thrown much light on the phenomena of decomposition and re-composition of organic substances. The matters which we obtain by distillation did not preëxist in the substance decomposed by heat. For instance, there is no paraffine in peat, but it is produced by a re-combination of the hydro-carbonaceous elements, at a certain temperature. Bituminous coals contain no bitumen, as may be proved by digesting them in benzole, which would at once dissolve it if any existed in the coal.

If we heat the coal until it softens, we produce bitumen abundantly, and it may now be dissolved out by the aid of the benzole. Only one kind of coal—that called asphaltic coal—yields any bitumen before it is roasted. The Albert, N. B., coal yields 15 per cent. of soluble bitumen, but this is an exceptional case. Again, paraffine, according to the researches of Mr. Atwood, is capable of being again broken up into volatilizable and permanent oils, and many heavy oils have been by him re-arranged in their elementary combinations, so as to give entirely new products. These are examples of changes effected in organic matters by the agency of regulated heat.

By the assimilatory powers of animal organism, more wonderful changes are effected in vegetable matters. All the complicated fluids and solids of the animal body are brought forth from the elements of food, and the vegetable proximate principles have their elements re-arranged and adapted to the purposes of animal life. It is probable that the animal economy cannot tolerate, in the circulatory system, any purely vegetable combinations of matter, and that, if the conversion into animal combinations does not take place, the introduced matter acts as an irritant, and is ex-

pelled by the secernent organs. Sugar, as such, certainly acts as a powerful irritant on the kidneys, as is shown by dissection of a diabetic subject.

The failure of the organs in the conversion of this substance into proper circulatory food is now well known to be due to a disorder of certain of the spinal nerves, or to the medulla oblongata.

Oil, injected into the blood, acts as a poison, because it has not been carried through the regular organs for its assimilation. Both sugar and oils are good respiratory food, but they must first be introduced through the organs of digestion, and be carried in succession through the various organs instituted for their preparation. Milk, in any other organ than the stomach, will not act as food. Injected into the blood, it would prove an irritant, if not a poison, for its elements are not so combined as to fit it for the circulatory vessels.

In order to explain how closely animal and vegetable proximate principles resemble each other, as shown by ultimate or elementary analysis, I subjoin some of the results of analyses made by Dumas and Cahours, still calling attention to the fact that these bodies do differ in the mode of combination of their elements, as before stated.

	Vegetable Albumen.	Albumen of Eggs.	Albumen of Serum.
Carbon,	53.74	53.37	53.32
Hydrogen,	7.11	7.10	7.29
Nitrogen,	15.66	15.77	15.70
Oxygen,	23.50	23.76	23.69
	Fibrine of Flour.	Of Human Blood.	Of a dog fed on bread two and a half months.
Carbon,	53.23	52.78	52.57
Hydrogen,	7.01	6.96	7.07
Nitrogen,	16.41	16.78	16.55
Oxygen,	23.35	23.48	23.81
	Casein of Flour.	Of Woman's Milk.	Of Cows' Milk.
Carbon,	53.46	53.47	53.50
Hydrogen,	7.13	7.13	7.05
Nitrogen,	16.04	15.85	15.77
Oxygen,	23.37	23.57	23.68

It will be seen that these matters are nearly of the same composition, as shown by elementary analysis; but still, under the test of destructive distillation, they will break up into entirely different products, and by their known difference in digestibility it would appear that they are differently acted upon, and undoubtedly different organic products are formed from them in the organs of assimilation.

It should be noticed, also, that the small proportions of sulphur and phosphorus, or their salts, which exist in those proximate principles of animal origin, and not in those derived from vegetables, are not considered in Dumas's analyses, above quoted. In the process of nutrition, of course, these elements are of great importance. However, it will be seen that in ultimate analysis animal and vegetable matters are essentially alike; that the pure fibrine of the oak and that of the human heart cannot be distin-

guished by such analysis, though by simple combustion in the flame of a candle, we may know which was from the vegetable and which from the animal.

SUBJECTIVE CONDITIONS WHICH MODIFY THE SENSATION OF COLD.

SOME interesting remarks upon this subject may be found in Brown-Séguard's *Journal of Physiology* for July, 1860, in an extract from a memoir by M. Ch. Maclins.

It is a singular fact, in connection with the power of bearing cold manifested by different nations, that the more Southern are less susceptible than the Northern. The Russians, Swedes and Norwegians cover themselves with thick furs, in a temperature which in France would call for nothing more than a surtout. While living in Montpellier, the writer was surprised to see how indifferent the people were to cold. Doors and windows were open, with the thermometer nearly at zero, Cent. The people were slightly clothed, and the houses appeared to have been constructed with especial reference to preserving the inmates from heat. When the winter nights are serene and cold, the thermometer descends oftener below zero than at Paris, and yet no provision is made against cold.

Russians, Swedes and Poles, on coming to pass the winter at Montpellier, complain of the low temperature of the apartments, while they might think the weather outside that of spring or summer, the houses which are cooled by night not being sufficiently warmed during the day.

The same is true in Constantinople. It snows there every winter, and yet the orientals seem indifferent to the rigors of the climate. The Arabs of Algeria bivouac in the open air, covered by their bournous. The Turcos bore, better than the other troops, the hard winter of the siege of Sebastopol. In the fatal Russian campaign it was seen with astonishment that the Italian regiments resisted the cold better than the German, and it is now known that the Russian army suffered excessively from the severity of its native climate.

A physician of Paris, Dr. Rufz, who practised medicine twenty-five years in Martinique, on his return to Paris felt the cold but little the first year, more the second, and still more the third. Other colonists have noticed the same thing. Sir John Ross, bearing in mind individual peculiarities in regard to the power of enduring cold, selected his men for the polar expedition by obliging them to place a naked foot upon the ice. Those who neither trembled nor grew pale were chosen, and the others rejected.

Among the physiological conditions of resistance to cold, every one knows that that produced by exercise is one of the most striking.

Having spoken of some causes which modify the effect of cold, a very important one remains to be mentioned, viz., elevation. Man, upon a high mountain, is exposed to all the causes of thermometrical cold designated.

1. The slight heating of the rarefied air, either by the sun or soil.
2. The great nocturnal radiation.
3. The expansion of the air, which rises from the plain along the side of the mountain.
4. The active evaporation from the soil.

To these may be added the most powerful of all—the agitation of the air.

MECHANICAL OBSTRUCTION OF THE INTESTINES—VOLVULUS OF THE FLEXURE OF THE COLON—GASTROTOMY—DEATH.

In the *British American Journal* for June, 1860, Dr. P. O. TESSIER reports the following interesting case.

A young woman had, on the 8th of May, slight fever, a hot skin, a quick pulse, headache, irritability of the stomach, and colicky pains around the navel. The bowels had been moved the previous evening. Calomel and Dover's powders were prescribed, to be followed by some evacuant medicine in the morning. On the following day she was much worse; the stomach had rejected the medicine, and the bowels had not been moved. On the 10th and 11th, the patient appeared better, but there had been no dejection. On this and the following day, attempts were made to open the bowels, but the medicine was vomited as before. On the 13th, some stercoraceous matter was thrown up. On the 14th, the distress was greater, and something like a tumor was felt on the left side of and a little below the navel. This being thought a volvulus of the flexure of the colon, gastrotomy was proposed as the only thing which could afford relief. The consent of the patient having been obtained after the expiration of six hours, she was operated on while under the influence of chloroform. An incision was made from the umbilicus to a point about an inch from the pubis. A gush of serum ensued, and was followed by coils of thickened, distended and discolored intestine, curling so much over the wound as to interfere with a proper examination. The incision was then extended to a point about two inches and a half above the umbilicus, while the intestines were supported by assistants. The flexure of the colon was found so convoluted that the direction of the twist could hardly be recognized. During the examination, a softened patch above the constriction gave way, and some of the contents of the intestine escaped. A ligature was immediately placed upon the aperture, which was about a quarter of an inch large. An adventitious band which crossed the convolution was then divided, and the obstruction at once relieved; but another patch gave way at the twist, allowing the contents of the

intestine to flow out. Of these, a small quantity fell into the peritoneal cavity. The latter was sponged out as carefully as possible, a ligature applied to the rupture, and the intestines were replaced. The wound was closed, and dressed with twisted sutures, and long strips of plaster across the abdomen, the whole supported by a broad bandage round the body. Under the use of stimulants she rallied for a while, but soon sank, and died about two hours after the operation.

OBSERVATIONS ON THE TRICHINA SPIRALIS.

[In a late number of this JOURNAL, there were published some interesting facts in connection with the habits and mode of development of the *Trichina Spiralis*. In the September number of the *Edinburgh Medical Journal* is a valuable communication upon the same subject, by WILLIAM TURNER, M.B., Senior Demonstrator of Anatomy in the University of Edinburgh. After referring to the above-mentioned observations, he proceeds as follows.—Eds.]

A subject, the muscles of which contained numerous specimens of the *trichina spiralis*, having been received into the dissecting rooms of the University during the present summer, I took the opportunity of verifying the experiments already detailed. The worms were observed to move, though somewhat languidly, on rupturing the cysts.

Experiment 1.—Gave to a kitten, on July 7th, portions of *trichina* flesh. The animal died about thirty-six hours after. On examining the intestinal canal, several specimens of *ascaris mystax* were found at its upper end, but no visible remains of the *trichinae*. On placing a drop of the mucus under the microscope, several ova were seen lying free in it; this observation was repeated in the mucus taken from different parts both of the large and small intestine, and, in almost every instance, one or more ova were found in the specimen examined.

In each ovum a distinct nucleus was visible, surrounded by more or less granular matter, between which and the external investing membrane there was generally a clear space, varying somewhat in its extent. It is difficult to account for the origin of these ova. At first it was supposed that they might be derived from the *ascarides* present in the gut; but a comparison of their size and appearance with the ova within the generative tube of the *ascaris*, at once showed that this was not the case, as the latter, in addition to having the granules diffused much more uniformly through them, were also very much larger.

Although no remains of *trichinae* or their cysts were discovered in the intestine, yet it could not be doubted that the animal had swallowed many of them, for it was seen to eat the flesh freely; a sufficient length of time had elapsed between the feeding and death

of the kitten to allow of their excretion. Are these free ova, then, to be regarded as derived from the trichinæ? To this question it is difficult to give an exact reply; for it may be objected, that the observations already related in a former part of this paper show that the trichina is a viviparous worm, the ova developing within the body of the worm, and not in the surrounding medium in which it lives. Although I am unable to offer any satisfactory explanation of the origin of these ova, I think it right to record the fact of their existence.

Experiment 2.—Administered to a cat on July 7th, 13th, and 16th, portions of trichina flesh, in the intervals feeding it on bread, milk and fish. It is doubtful whether on the two last occasions the trichinæ were alive. Killed the cat July 24th. In the jejunum several specimens of ascaris mystax were found, and in the ileum a small tænia, but no remains of trichina cysts. The intestinal mucus presented to the naked eye nothing remarkable; but on placing a drop of it under the microscope, three or four thread-like worms were seen actively moving about in it, at one time coiling themselves up in a spiral manner, at another elongating themselves. Every drop of mucus taken from the small intestine contained one or more, and occasional specimens were also found in the mucus of both the large intestine and the stomach. Free ova were also here and there met with of the same size and appearance as those seen in the ovarian tube of the ascaris.

Each of these thread-like worms was about 1-40th inch long, and 1-1000th inch broad, with a pointed and a rounded end, in size being about two thirds smaller than the trichinæ met with in the muscles of the same cat. In structure the worm was transparent, so that a canal could be distinctly traced within it from the rounded almost to the pointed extremity. It was somewhat difficult to say whether this canal extended as far as the pointed extremity, or terminated a little on one side of it, although the former is the more probable view. In the middle third, and partly also in the narrower end of the worm, a sacculated or cellular appearance was observed, apparently surrounding the alimentary canal, and on one side of this a collection of granular matter was seen.

The muscles of this cat, to the naked eye, appeared quite normal; but on placing a portion of the latissimus dorsi under a low magnifying power, several cysts containing trichinæ were seen in it. In the external oblique they were also found, but I did not observe any in the transversalis. In the diaphragm and psoas muscles a few existed, but in smaller proportion than in the more superficial muscles. They were also sparingly distributed in the muscles both of the fore and hind limbs. When the cysts were isolated, and examined under a higher magnifying power, they presented a shape differing from that which we are most familiar with in the human muscle. Instead of being elongated, and possessing one or two well-marked poles, they

were almost all round, or with but a slight tendency to the oval form. The walls were thin and transparent, and of an almost uniform thickness throughout the entire circumference, in structure being faintly granular or striated. The cavity within each cyst was round, or nearly so. Owing to the transparency of the wall, the spiral arrangement of the worm, and even the leading features of its anatomy (which corresponded exactly with those which we are familiar with in human muscle), could be readily examined without rupturing the cyst. In no instance did I see more than one worm in each cyst. Gentle pressure upon the glass cover readily expelled the worm, when it was seen to move about in the fluid. Along with the worm, a considerable quantity of viscid material, containing granules and numerous nuclei, each with its enclosed nucleolus, was extruded. These nuclei, or small cells, as they might with equal propriety be called, probably fulfil an important office in connection with the nutrition of the worm, by absorbing from the surrounding textures the materials necessary for its nutrition. Nuclear or cellular particles of a similar nature I have also seen frequently in the trichina cysts from human muscle.

The muscular fibres surrounding the cysts exhibited no appearance of fatty degeneration, neither were there those large collections of fat-cells about the exterior of the cyst, which are so common in the muscles of man.* Virchow, in his paper already cited, puts forward the hypothesis, that the trichina lies within the muscular fibre, and not between adjacent ones, as is generally supposed, and that the cyst wall is formed by thickened sarcolemma, and not by hypertrophy of the connective tissue. He bases this view partly upon theoretical grounds, and partly upon the fact that Bowman and others have observed nematoid worms inside the tube of sarcolemma. Although I have made numerous observations bearing upon this point, yet I have not been able to satisfy myself of its correctness.

The conclusions which may be drawn from the experiment I have now related appear to me to be the following:—The interval which had elapsed between the feeding and the death of the cat had given time for the trichinæ which it had swallowed to propagate in its intestine. Many of the young trichinæ still remained in the gut, and constituted the thread-like worms which I have described as existing there. Others had emigrated from the gut, and, after working their way into the muscles, had become encysted. The cysts themselves exhibited all the characters of having been recently formed; for they were almost perfectly transparent, and they exhibited no deposition of calcareous particles, either in their walls or cavities; besides, there was an absence of fatty degeneration in the muscular fibres surrounding them, and of the deposition of

* I may mention, that in the examination of trichina cysts in the human muscle, especially where the fat-cells have been at a minimum, I have frequently found numerous nuclei lying in the tissue immediately outside the cyst; these were always especially abundant about the poles.

fat-cells in their vicinity. Lest it might be supposed that the thread-like worms found in the intestine of this cat were derived from the ascarides dwelling there, I examined the intestinal mucus of a healthy cat, to which no trichina flesh had been given, but in whose canal living ascarides were present, but no trace of such worms was seen. Moreover, it must be borne in mind, that whilst the ascaris mystax appears exclusively to inhabit the duodenum and jejunum, the thread-like worms were found both in the large and small intestine.

But, whilst the conclusions which I have drawn tend to explain, more satisfactorily than any other, the sequence of events, yet it must be confessed that certain links are still wanting to render the chain of evidence complete. In such an extensive emigration as must have here taken place, one would have expected to have found indications of the passage of the worm through the intestinal wall; but, although I examined microscopically several dozens of sections made through different parts of the wall, I could see no trace of such passage, neither could I find any worms lying free in the peritoneal cavity. It should be mentioned, however, that Virchow has met with them in the mesenteric glands, and Herbst also has seen them in the mesentery of a small owl. One would also have imagined that those muscles which surround the abdominal cavity—viz., the diaphragm, transversales, and psoas—would have contained the worms in greater abundance than the muscles situated nearer the surface of the body, which was not, however, the case. It was long ago remarked by Owen that the superficial muscles of the human body were much more abundantly affected than those more deeply situated. In special examinations which I have made of several bodies, I have invariably found this to be the case, the pectoralis major, trapezius, latissimus, and external oblique containing more cysts in a given space than the pectoralis minor, rhomboideus, and internal oblique or transversalis. Moreover, the cysts are much more extensively distributed near the superficial than the deep surface of the same muscle—a fact of considerable interest, for it shows the tendency which the worms possess to work their way towards the exterior.

When the worms have once reached the muscles and become encysted, they remain dormant, many of them undergoing calcareous degeneration. If it should so happen that the flesh containing them should be swallowed by another animal, then they become developed in its intestine. In Zenker's case, and in the pig fed by Leuckart, the emigration of the worms from the intestines to the muscles, and their presence in the latter, produced well-marked symptoms, which in Zenker's case led to a fatal termination. Up to the present time, this is the only recorded instance of death being occasioned by the worm, or even of symptoms being produced which might lead to the supposition that it was present. I have compiled from the various medical journals the following table of recorded cases,

and appended to it six cases which have come under my own observation :—

Authority.	Sex.	Age.	Disease.
Owen,	M.	50	Tubercles and Bright's disease.
"	F.	....	Sloughing ulcer, and diarrhœa.
"	M.	Aged.	Not stated.
Wood,	M.	22	Acute rheumatism.
Farre,	M.	Middle Age.	Tubercles.
Curling,	M.	58	Fractured skull.
"	M.	60	Fractured ribs.
Gairdner,	M.	60	Purulent infection of blood.
Millar,	F.	49	Tumor of tongue, probably cancerous.
Luschka,	F.	80	Old syphilitic disease.
Rainey and Bristowe,	M.	56	Pulmonary and cardiac disease.
Henle,	M.	60	Not stated.
Zenker,	F.	20	Pyrexia, tympanitis, abdominal and muscular pains.
Turner,	M.	60	Paralysis following apoplexy.
"	F.	79	Old age and debility.
"	M.	66	Cancer of pylorus.
"	F.	49	Unknown.
"	F.	60	Asthma and general debility.
"	F.	37	Meningitis.

With two exceptions, Wood's* and Zenker's cases, the remainder had reached the middle or advanced periods of life, and had died of debilitating disorders—such diseases, in fact, as most commonly terminate life at these ages. No record is given of symptoms which could be referred to the emigration of the worm from the intestine to the muscles, and, if ever these occurred, they were probably so far back in the life of the patient as to have escaped his recollection. That it is quite possible for the active exercise of the muscles to be performed, and for the individual to be apparently in sound bodily health, even with the encysted worm present in the muscles, is proved by the two cases recorded by Mr. Curling.† These men were both suddenly killed by the receipt of severe injuries, whilst engaged in the performance of severe manual labor.

With regard to the comparative frequency of the trichina in man, I am disposed to look upon it as much more common than is generally supposed, between one and two per cent. of the dead bodies which have come under my observation during the last five years having been so affected.

* London Medical Gazette, May, 1835.

† Ibid, January, 1838.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE SUFFOLK DISTRICT MEDICAL SOCIETY. CALVIN G. PAGE, M.D., SECRETARY.

MEETING of October 27th, 1860.—*Poisoning by Arsenious Acid.* Dr. IRA L. MOORE reported the case.

On Wednesday, Oct. 10th, 1860, at 8 o'clock, A.M., he was called in haste to one of the hotels. He found a young man, aged about 21, who was vomiting and purging almost incessantly. As soon as the vomiting ceased so that the patient could speak, he said that he had taken arsenic, in order to destroy life; that he had taken two thirds of all that he had purchased, and the remainder was found to weigh eighty grains. The matter vomited amounted to two quarts, and was of a dark-chocolate color.

There had also passed from the bowels eight quarts of dark-greenish fæces.

The history given by the patient was, that he bought the arsenic in New York, came to Boston the night previous, and at 11 o'clock, P.M., he mixed two thirds of what he had in a tumbler of water, and, after drinking it, retired. In about two hours, viz., at 1 o'clock, A.M., he began to vomit and purge, and continued to do so every few minutes during the whole seven hours.

He complained of a *terrible* distress in vomiting, and of a severe burning pain, or rather distress in the hypogastric region.

Dr. Moore immediately ordered him to take, *freely*, the white of eggs, encouraged the vomiting, gave him three ounces of olive oil, and as soon as it could be procured—which was, perhaps, one half hour—*fed* him *freely* on the hydrated sesquioxide of iron, in tablespoonful doses every few minutes, until he had taken some *six ounces*.

At first, it was ejected from the stomach almost as soon as swallowed. In the course of from thirty to sixty minutes after the administration of the antidote, the distress in the stomach almost entirely ceased; but the vomiting and purging continued for five hours longer, or twelve hours in all.

At 1 o'clock, P.M., the acetate of morphia was given, which, with a mustard paste over the region of the stomach and bowels, checked both the vomiting and purging.

His pulse, when first seen, was 140, small and weak, and there was an expression of anxiety about the countenance. Skin cold and moist; lips dry and parched; tip of tongue red. The pulse continued about the same till two or three hours after taking the iron, and by 4 o'clock, P.M., it was only about 100, and stronger.

Small doses of acetate of morphia were continued, also mucilaginous drinks, and on Thursday, at 5 o'clock, P.M., a period of forty-two hours after taking the poison, he left for New York. At the time he left, he had not sat up for a moment, and seemed like a person who had had a severe attack of cholera morbus.

To be certain that it was arsenic that he took, *three tests* were applied successfully, which left no doubt on the subject.

The *œdema arsenicalis* appeared in about fifteen hours after taking the poison, but not so much as in a case seen by Dr. Moore some few weeks since, where a young man took, by mistake, a teaspoonful of Fowler's solution (liq. potassæ arsenitis) which in ten hours produced

so much *œdema* of the eyelids as nearly to close the eyes, but who also recovered without difficulty.

Glass-wound of Palm.—Dr. H. J. BIGELOW referred to the case of a young man, a clerk to the Sandwich Glass Company, who had slightly pricked the palm of the hand. There was much bleeding at the time, but the wound healed by the first intention; afterwards, the back of the hand became swollen, as if pus were forming. The hand was poulticed, and he returned in a few days, having had hæmorrhage from the wound; the palm was more swollen, soft and fluctuating. Dr. B. felt that he had to deal with a false aneurism. The patient was sent to the Hospital, the palm opened, and considerable coagulum turned out, but the bleeding vessel could not be found. One or two superficial vessels were tied, and compression tried, which controlled the bleeding for three days, and then there was free hæmorrhage, with oozing from the wound, for four days more, when he tied the brachial. But this did not stop the hæmorrhage. On cutting deeper, he found a second brachial, which was also ligatured, which stopped pulsation in the ulnar, and yet the bleeding did not cease. On further search he found still a third artery, which he ligatured also, and thus succeeded in stopping the bleeding. In this case, the radial, ulnar and interosseous branched high up.

Dr. A. A. GOULD related the case of a lady, pregnant for the third time, and who had lost her first two children. She had flowing at the end of the second month. The rest enjoined to prevent its recurrence affected her general health. About the fourth month she swelled enormously; the feet were *œdematous*; there was some *anasarca*. She got iron and bark with benefit, but she was still *anæmic*. She was directed to live well, and walk, which she did by preference in the evening. She continued to improve, but at 7½ months was attacked with a paroxysm of rapid and incessant cough, which she could not control. Dr. G. was sent for, but the paroxysm had passed before he arrived; he remained with her some time, during which she had no return of the trouble, and he left an *anodyne*, to be taken in case she should have a return of it. She walked out in the afternoon. The paroxysm returned at night, and before Dr. G. reached her she was dead. The *post-mortem* showed the lungs infiltrated with water, and twins *in utero*. There was no increased quantity of amniotic liquid. The veins, where the cut was made over the sternum, continued flowing during the autopsy, and some hours afterwards the body was filled with blood.

Dr. G. thought it remarkable that the patient should continue so well up to the time of her death. He referred to a similar case narrated to him by Dr. Ellis, who afterwards furnished the following account.

The patient, a French woman about 40 years of age, was first seen on Aug. 29th. The father had been asthmatic. At the age of 20 she had a "cerebral fever," and in 1853 was badly burned. Since 1855, she had been more or less troubled by cough, the latter being most noticeable during the catamenial periods, and nearly absent in the intervals. For a fortnight, however, it had been very urgent, paroxysmal, and attended by the expectoration of a little frothy mucus. With this there was great dyspnoea, which, with the cough, often prevented sleep, or even rest in bed, the nights being perhaps passed in a chair.

All of the symptoms, in a word, were those of asthma. On exami-

nation of the chest, the resonance was found to be everywhere normal, and sibilant râles only were heard in the back. No fever. Pulse natural. Appetite pretty good. Bowels regular. Lower extremities highly œdematous. She was pregnant, and, as she thought, within two or three weeks of the time of confinement; but had no accurate data upon which this opinion was based. The foetal heart was heard beating distinctly in the right iliac region. The urine, on examination, proved to be in every respect normal. A pill composed of Indian hemp and squills was prescribed, but as this afforded no relief, antimony was added at the end of the second day. That night she slept well, and on the following morning reported herself as perfectly easy, with less cough and more expectoration. The next day, Sept. 2, the dyspnoea returned, although the abdomen had somewhat subsided. Stramonium was smoked with relief, and on the 5th she was so comfortable that it was not thought necessary to continue to visit her. On the 8th, however, the dyspnoea again became very urgent, and increased until the lividity of the face showed that life was threatened. After a consultation with Dr. D. H. STORER, on the 10th, the membranes were ruptured between one and two o'clock, and she was safely delivered of a still-born child in the evening. The relief was immediate, and that night she remained in bed, which had, before, been impossible. The dyspnoea soon returned, however, and became more urgent than ever; abundant fine mucous râles were heard in the back, the pulse became quick, the mind wandered, and she died about midnight on Sept. 12th. Dr. Ellis being absent from the city, she was seen several times during the last day by Dr. Stearns. Her death seemed to have been caused by œdema of the lungs.

Dr. PUTNAM asked the probable cause of death in Dr. Gould's case.

Dr. G. thought it to be from œdema of the lung, producing suffocation. The patient had lost the previous child through the carelessness of the nurse, who had not properly tied the cord, the child having been born before the arrival of Dr. G.

Dr. Putnam asked how long the œdema of the lung had probably existed.

Dr. G. thought not longer than twenty-four hours.

Dr. GARRATT related a case of epilepsy in a man 40 to 50 years of age, from New York. He had suffered with his teeth for years; these had been extracted, and artificial ones substituted. He became paralyzed in the muscles of his face and tongue. There was a peculiar drawing of the mouth, from which the aura epileptica came, just previous to the fit; the tongue was inclined to fall back within the mouth; he was fearful of swallowing it. In investigating the case, Dr. Garratt removed the false teeth, and found the soldering discolored; he went back to his dentist, had a rubber plate made, and had no further attack of epilepsy. The paralysis gradually subsided. He had never seen a similar case.

Dr. C. D. HOMANS recently saw a lady with pertussis of two weeks' duration. She had paroxysms of coughing, which lasted three quarters of an hour each, and had continued for thirty or forty hours. Belladonna, one eighth to one fourth of a grain, was given for two days, when symptoms of poisoning with the drug showed themselves. There was dry throat, loss of sight, cold, swollen hands, &c., but the pertussis was relieved.

Dr. DALTON stated that the late Dr. Elisha Bartlett, of Lowell, some

twenty years ago, was accustomed to give tincture of belladonna in pertussis ; he thought it mitigated, if it did not stop the disease, in most instances.

Bibliographical Notices.

An Elementary Treatise on Human Anatomy. By JOSEPH LEIDY, M.D., Professor of Anatomy in the University of Pennsylvania ; Member of the American Academy of Arts and Sciences ; Imperial Society of Naturalists, Moscow ; Imp. Leopold. Carol. Acad. of Sciences, Jena ; Royal Academy of Sciences, Munich ; Biological Society of Paris ; Zoölogical Society, London, &c. &c. With three hundred and ninety-two Illustrations. Philadelphia : J. B. Lippincott & Co. 1861. 8vo. Pp. 663.

THOSE who affect an American literature in distinction from that universal literature to which all true science belongs, may well welcome a work of such pretensions as Dr. Leidy's. To all, indeed, who feel any interest in the subject, it is grateful to receive what an experienced mind, well-cut illustrations and admirable typography can give us on so long-used a topic as Human Anatomy. This is one of the most elegant medical issues of the season ; and yet it almost seemed as if we had enough anatomical treatises before. Bell, Cloquet, Bichat, Sharpey and Quain, MacLise, Wilson, Horner, Hodges, and many others, have successively exhausted the subject of general, descriptive, surgical and practical anatomy.

So great, however, is the increase in number of those who study the natural sciences in our day, that the demand has doubtless often been made of all our medical readers, as it has of us, "Where can we find an *Elementary Anatomy* ?"

Such a work is needed now, and here more than elsewhere ; but it is, unfortunately, very difficult to write. For although the greatest masters, in all arts, have often been the most lucid expounders of their elements, to the novice—as Faraday, for instance—yet on the present theme the subject-matter is so vast, so intricate, and so inter-dependent, that entire technical simplicity is impossible, and abridgement is fatal to full comprehension.

He who enters on this study must master all, or be forever confused. It is not susceptible of division, or reduction. He must be prepared, too, to wade through endless technicalities, dry details, obsolete figures and fancies, and a chaotic nomenclature, before he can assimilate and re-form, in his own mind, the true type of the human frame.

The author tells us that, "the present work is intended as an elementary treatise on human anatomy, and is not an elaborate system adapted to the use of those who have already advanced in anatomical knowledge ;" and that he "has attempted to prepare such a book as he feels would have been of service to himself in the commencement of his studies." After this statement, we might be surprised to open an octavo volume of 663 pages—being nearly 100 pages more than Wilson, although not so closely printed—were it not for the impossibility of abridging anatomy, to which we have already alluded.

It remains to be determined whether the style and matter of this new treatise render it more adapted to the needs of the younger student than the commonly accepted text-books : and it will be most convenient to compare it with the confessedly elaborate "System of Anatomy" of Wilson.

We prefer Dr. Leidy's arrangement of subjects. The ligaments are treated of in connection with the bones, whose articulations they unite : and the fasciæ are described as parts of each locality to which they belong, instead of being set one side in a separate chapter.

On the other hand, the fibrous, cartilaginous and adipose tissues, and the serous and mucous membranes and glands, form two chapters, mainly of a histological nature. The muscles take up about an equal share of either work. Under the head of the "Vascular System," the arteries, veins and lymphatics are all included. The vocal and respiratory apparatus are well classed together. The alimentary tract occupies fifty-six pages in its elucidation. The urinary and the generative organs are discussed in separate chapters. The nervous system takes more space than any other single subject, extending over eighty-four pages. A section on the senses closes the volume. Wilson dwells less on microscopic anatomy and the senses than Leidy, but has a short chapter on the anatomical peculiarity of the fœtus, which is wanting in the latter. Leidy introduces the composition and microscopic appearances of the blood, and some few passages of physiology—enough to elucidate certain functions, as the action of the heart, for instance. Wilson follows the description of each bone by an account of its points of ossification and its development, its articulations, and the names of the muscles attached to it : thus giving a distinct idea of its relations to other bones and its connection with the soft parts. Leidy does neither.

So in Wilson's description of the muscles, the origin and insertion and general peculiarities and uses are followed by a *résumé* of their relations to all the neighboring parts, whether other muscles, blood-vessels or nerves. The same careful mode is pursued with the arteries. Sufficient direction is also given the student to enable him to proceed with the dissection of the other and contiguous muscles. A description of the same muscle by each author will best manifest their differences. We open, at hazard, at the *Pectoralis Major*.

WILSON.—"The PECTORALIS MAJOR muscle arises from the sternal two thirds of the clavicle, from one half the breadth of the sternum its whole length, from the cartilages of all the true ribs, excepting the first and last, and from the aponeurosis of the external oblique muscle of the abdomen. It is inserted, by a broad tendon, into the anterior bicipital ridge of the humerus."

"That portion of the muscle which arises from the clavicle is separated from that connected with the sternum by a distinct cellular interspace ; hence we speak of the *clavicular* portion and *sternal* portion of the pectoralis major. The fibres from this very extensive origin converge towards a narrow insertion, giving the muscle a radiated appearance. But there is a peculiarity about the formation of its tendon, which must be carefully noted. The whole of the lower border is folded inwards upon the upper portion, so that the tendon is doubled upon itself. Another peculiarity results from this arrangement ; the fibres of the upper portion of the muscle are inserted into the lower

part of the bicipital ridge; and those of the lower portion, into the upper part."

"*Relations*.—By its *external surface*, with the fibres of origin of the platysma myoides, the mammary gland, the superficial fascia and integument. By its *internal surface*, on the thorax, with the clavicle, the sternum, the costal cartilages, intercostal muscles, subclavius, pectoralis minor, and serratus magnus; in the axilla, with the axillary vessels and glands. By its *external border*, with the deltoid, from which it is separated above by a cellular interspace lodging the cephalic vein and the descending branch of the thoracico-acromialis artery. Its *lower border* forms the anterior boundary of the axillary space."

"The pectoralis major is now to be removed by dividing its fibres along the lower border of the clavicle, and then carrying the incision perpendicularly downwards, parallel to the sternum, and at about three inches from its border. Divide some loose cellular tissue, and several small branches of the thoracic artery, and reflect the muscle outwards. We thus bring into view a region of considerable interest, in the middle of which is situated the pectoralis minor."

LEIDY.—"The *Great Pectoral Muscle* occupies the front of the upper part of the chest and axilla. It arises from the sternal two thirds of the clavicle, the front of the sternum, and the upper six costal cartilages, and from the aponeurosis of the external oblique muscle of the abdomen. Proceeding outwardly, its fleshy fasciculi converge to a broad tendon, which is inserted into the anterior margin of the bicipital groove of the humerus.

"The clavicular portion of the muscle is separated from the other by an interval filled with connective tissue. The outer portion of the muscle, with its tendon, is doubled on itself, so as to produce the thick anterior fold of the axilla, and the lower fleshy fasciculi, by this arrangement, become inserted into the humerus higher than the upper ones."

"The great pectoral muscle draws the arm downward and forward, in which movement it is aided by the small pectoral muscle drawing the shoulder in the same direction. If the bones of the shoulder and arm are fixed, the pectorals aid in respiration, by elevating the ribs."

It is true that these minute relationships are not necessary except to the practical anatomist. In the presence of the dead subject we need to have each part described, as it appears in connection with all others. The want, which dissectors had long felt, of a manual which should mark out all the muscles, vessels, nerves and fasciæ of a single region, as they unfold themselves under the scalpel, on one page, and not scattered in many remote sections, has been well supplied by the "*Practical Dissections*" of Dr. Hodges. This is akin to topographical or surgical anatomy. With Wilson, the dissector can get along comfortably and understandingly. But the "*Elementary Anatomy*" of Dr. Leidy is rather a companion for the study, than the dissecting room. The number and excellence of the illustrations, to be sure, compensate for an abbreviated text; but of these we shall speak presently.

One distinguishing feature, which Dr. Leidy mentions in his preface, is to use "a single name for each part; of the many names em-

ployed, to use that which is most expressive of the character of the part; and when admissible, the name is Anglicized. A copious synonymy is added in foot-notes." All would gladly welcome the successful reformer in anatomical nomenclature. Probably no one cause has contributed so much to retard and dishearten the student as the confused nomenclature of this subject. The naming of muscles is peculiarly defective: some are named from their situation; others from their uses; others from their form, and others, still, from their direction or attachments. There remain many, also, called from some fancied resemblance to various objects. A like looseness of terminology prevails throughout the other departments of anatomy. What possible analogy does the "*torcular Herophili*," so called, in the human skull, bear to a wine press? or who would imagine the resemblance of a little projection in the ventricle of the brain (*Hippocampus major*, or *cornu ammonis*) to the crest of Jupiter Ammon? It would be useless to multiply instances. Now while all admit the need of a change of nomenclature, the difficulty of making it will be as universally conceded. We may be permitted to doubt whether Dr. Leidy has met with more than a partial success in his attempt to Anglicize the Latin names of the muscles and vessels. Latin is the language of terseness; many single Latin words can only be rendered *fully* by an English paraphrase. Another objection to changing is, that it shakes the foundations of all previously acquired knowledge, to alter even the *names* of things. As examples of improvement in nomenclature by Dr. Leidy, we may cite the "labio-nasal elevator" for the "*levator labii superioris alaeque nasi*;" and the "first phalangeal extensor of the thumb," for the "*extensor primi internodii pollicis*." All the region of the forearm (with two exceptions) is better described, and made plainer, in English, than in Latin. So, too, in the lower extremity, we prefer the "semitendinous" and "semimembranous" muscles, to the "*semitendinosus*" and "*semimembranosus*;" and the "tensor of the femoral fascia," to the "*tensor vaginae femoris*," not as briefer or more euphonious, but as more simple and expressive. On the other hand, we are unable to see the improvement in calling the "*pronator radii teres*" the "terete pronator"; or the "*teres major and minor*" the "greater and lesser terete muscles." Why is "asperous ridge" better than "*linea aspera*"? the "lattissimus muscle," than the "*lattissimus dorsi*"? "quadrate lumbar," than "*quadratus lumborum*"? The "volar" artery is less expressive than the "*superficialis volæ*"; and the "profound femoral artery" less simple than the "*profunda*." Such names as *pterygoid* and *masseter* are left untouched; and even the most skillful Anglicist recoils before the kakophony of the "gastro-epiploic," and "pancreatico-duodenal" arteries! This change of nomenclature we may then call partial, both as to extent and success.

The engraver's and the printer's art leave us but one word to say, and that of praise. We have never seen so fine a specimen of American medical typography and wood engraving. The work contains some 140 more illustrations than that of Wilson, and of a far superior quality. Many, too, are original; and the authors, from whom copies are taken, are always duly mentioned. A considerable number are copied from Wilson, whose illustrations are nearly all original, he assures us. There can be no objection to borrowing the happiest deli-

neations and best points of view of muscles, and groups of muscles, from a good authority. There is no call, indeed, for originality, where the best has been done before. We have only a right to demand discretion in choice; and it has been well said, "*bien choisir c'est l'invention.*"

It has been objected that too copious illustration tends to call off the student's attention from the "subject" itself, in the dissecting-room. Such an objection does not apply to a volume used in the study, or in the class. We have to thank the author for some finer microscopic delineations, drawn by himself, than we can find elsewhere. He is peculiarly rich in this department. The development of cartilage and bone; the microscopic differences of fibrous and elastic tissues; the epithelia; the glandular surfaces of the whole intestinal tract; the heart and kidneys—owe to the author, and to Dr. Schmidt and Mr. Wilhelm, an unusually clear and beautiful elucidation by the microscope, the camera and the wood engraving. The view of the *Parovarium* is entirely new to us. Many good microscopic illustrations are taken from Kölliker. Such are those of the minute anatomy of the liver; of the walls of the blood-vessels; of the thymus and thyroid glands; of the supra-renal capsules; the testicle; the mammary gland; nerve cells; the sebaceous glands, and the hair. Sharpey and Quain contribute some more general illustrations. Wilson furnishes most on the bones and muscles; Jamain on the arteries; Bourgery on the veins and lymphatics; and Hirschfeld and Sappey on the nervous system. We confess to a slight suspicion of the diagrammatic character of Bourgery's plates. Things are made to look almost too well; the veins meander in too regular a net-work for the ever-varying license of nature; and the lymphatics are portrayed with a minuteness and seeming accuracy, which may approach very near the anatomical truth, but which very few eyes can have ever seen.

The descriptive text is good. That of the minute anatomy of the liver is simpler, more modern, and better, than that of Wilson; the peritoneum, with the illustration, is also more lucid to us in this work than in the other; and the notice of the *ependyma* is found in Leidy alone. The whole account of the alimentary apparatus, from the stomach to the rectum, including the liver and spleen, is full and good. Histology is more dwelt on than in former works. The urinary and generative apparatus are well illustrated and explained. The nose, the eye and the ear are treated of at twice the length they are in Wilson. The latter gives but five illustrations to the eye, and three to the ear; while Leidy furnishes fifteen to the one, and ten to the other.

We like also the mode of printing the more important words, throughout the text, in enlarged, black type, instead of in italics; in this respect we think the anatomist has done well to follow the example of the modern dictionaries, and classical text books. The paper is just right in tint, and of excellent quality; and there seem to be but few *errata*. The foot-notes of synonyms, too, are full and valuable.

On the whole, we may regard this Anatomy with pride, as a new ornament to American medical literature. There is enough that is original in research and illustration, while old facts are told briefly, and the best plates selected from the best anatomical masters.

As we have indicated, we may object somewhat to its nomenclature, and its omission of the relations and attachments of contiguous parts.

In this respect, and in the absence of practical directions, it is ill-adapted to the dissecting-room. It is too handsome a volume, also, for such uses.

As a study companion; an ornament to the library of the medical amateur; an attractive text-book to the younger student—whether of medicine or the natural sciences—a more modern anatomy in the histological department than any yet issued here, and the finest specimen of American medical typography and engraving, we take great pleasure in recommending it to the profession and the public.

D. W. C.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, NOVEMBER 8, 1860.

THE unusual length of original communications this week has crowded our pages and left little room for editorial and miscellaneous matter. We are glad, however, to give place to what we are sure our readers will find of more than ordinary interest and value.

THE HEAVIEST CHILD BORN ALIVE.—A writer in the *Medical Times and Gazette* says:—"You were good enough to publish in your Journal the details of the birth of, what I then believed to be, the heaviest child ever born alive— $18\frac{1}{4}$ pounds. I have since been informed by Mr. Davies, of Pershore, that he attended, many years ago, a woman who was delivered safely of a living child weighing nineteen pounds and two ounces. Forceps were employed to effect delivery, the labor (as may be supposed) having been very tedious; but both parent and child did well, and are still living."

ON THE USE OF TANNIN IN LARGE DOSES IN ALBUMINOUS ANASARCA.—A case is recorded in which the use of tannin appears to have been attended with favorable results in the removal of anasarca. The patient was in an advanced stage of the disease, the face and whole body being anasarcaous, and the urine being loaded with albumen. Small doses of tannin and tonics were employed without effect, and the patient fell into a semi-comatose condition, with slight convulsive movements of the lower limbs, and dilatation of the pupils. The tannin was again employed in the dose of half a drachm, and under its use the anasarca gradually disappeared, the patient regained his consciousness, and eventually he entirely recovered.—*Brit. and For. Medico-Chirurgical Review*.

CONGENITAL SYPHILIS—ITS TRANSMISSIBILITY FROM THE CHILD TO THE NURSE. JUDICIAL ACTION FOR DAMAGES.—The parents, D., placed their child to nurse with a married woman, R. When the child was three months old, it was attacked with a syphilitic eruption; five days after, the nurse, a mother of children, and until then enjoying excellent health, and of irreproachable morals, was attacked with ulcerations and pustules on her breasts, the syphilitic appearance of which was incontestable. Her husband was very soon infected, and his wife (the

nurse), who had given birth to three fine, vigorous children, aborted of a dead child. In spite of the efforts of M. Quetand, who advocated the doctrine of the non-transmissibility of syphilitic accidents, the parents, D., were adjudged to pay to the nurse, R., three thousand francs. The physician of the nurse and child, who was sued for negligence, was acquitted.—*Gaz. Hebdomadaire*.

THE ADULTERATION OF FOOD AND DRINK.—An act has been recently passed by the Parliament of Great Britain, and is now a law, to prevent the adulteration of articles of food or drink.

“By this act it is rendered illegal—

“1. To sell any article of food or drink with which, to the knowledge of the seller, any ingredient or material injurious to health has been mixed.

“2. To sell as pure or unadulterated any article of food or drink which is adulterated or not pure.

“The punishment for the first offence consists in the infliction of a fine not exceeding £5; while for subsequent offences it is rendered lawful for the justice to cause the offender's name, place of abode, and offence to be made public.”—*Medical News and Library*.

THE College of Physicians and Surgeons, New York, will hereafter constitute the Medical Department of Columbia College of that city.—Dr. Rublee, of Vermont, passed through this city on Monday last, *en route* to visit the seat of war in Italy.—The Board of Guardians of the Poor have opened the Philadelphia Hospital to medical students free of charge. Hereafter no fee tickets to clinical lectures will be demanded.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, NOVEMBER 3d, 1860.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	42	27	69
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	32.2	34.5	66.7
Average corrected to increased population, . . . . .	..	..	74.4
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infan.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
9	1	4	6	0	1	0	3

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.459	Highest point of Thermometer,	69°
Highest point of Barometer,	30.630	Lowest point of Thermometer,	33°
Lowest point of Barometer,	29.900	General direction of Wind,	Easterly.
Mean Temperature,	55°.3	Whole am't of Rain in the week	0.038

DIED,—At Chicago, Ill., Oct. 28th, Dr. William D. Egan.

Deaths in Boston for the week ending Saturday noon, November 3d, 69. Males, 42—Females, 27.—Accident, 1—apoplexy, 1—abscess (of the hip), 1—inflammation of the bowels, 1—congestion of the brain, 1—burns, 1—cholera infantum, 1—cholera morbus, 1—colic (bilious), 1—consumption, 9—convulsions, 4—croup, 3—debility, 2—diarrhoea, 1—puerperal disease, 1—dropsy, 4—dropsy of the brain, 2—drowned, 1—scarlet fever, 4—typhoid fever, 3—gastritis, 1—disease of the heart, 4—disease of the kidneys (Bright's), 1—disease of the liver, 1—inflammation of the lungs, 6—marasmus, 1—paralysis, 2—premature birth, 2—smallpox, 1—unknown, 6—whooping cough, 1.

Under 5 years, 25—between 5 and 20 years, 9—between 20 and 40 years, 14—between 40 and 60 years, 10—above 60 years, 11. Born in the United States, 43—Ireland, 19—other places, 7.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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No. 16.

CHRONIC CHOLECYSTITIS, OCCURRING INDEPENDENTLY OF
OTHER DISEASE, AND TERMINATING IN PERFORATING
ULCER OF THE GALL-BLADDER.—DEATH—AUTOPSY.

[Read before the Boston Society for Medical Observation, Nov. 5th, 1860, and communicated for the Boston Medical and Surgical Journal.]

BY EDWARD H. CLARKE, M.D.

Mrs. ———, an American, æt. 39, of a delicate appearance but enjoying good general health, was attacked with what proved to be perforating ulcer of the gall-bladder, on the 22d of May, 1860. The following is the history of the case:—

She had borne six children. All of her confinements had been normal, and she recovered from them favorably. Her habits were active and regular, and she was abstemious, rather than otherwise, in her diet. In the spring of 1853, she suffered from jaundice. While convalescing, she was suddenly attacked with intense pain in the region of the liver. This was accompanied with vomiting and great general distress. She was then in the country. By the time a physician reached her house she was easier, and soon got complete relief. According to her report, this sudden attack was supposed, by her physician for the time, to be in some way connected with the gall-bladder or gall-ducts, though nothing was said to her about the passage of a gall-stone. Six years later, during the summer of 1859, and while residing at the seashore, she was similarly attacked. The prominent symptoms, then, were intense pain in the side, vomiting, and, soon after, complete relief. She sent for a neighboring physician; he gave her no explanation of the character or cause of her attack, and she required no prolonged treatment. During the two months preceding her death, she suffered two or three times from a sudden access of pain, which she referred to the region of the stomach. The pain was followed by vomiting, and the vomiting by relief. On each occasion she sent for me, but, by the time I reached her house, she was always

nearly or quite recovered. I did not find it necessary to prescribe any remedies, after any of these attacks. An examination of the affected region revealed no tenderness, and the relief was so complete that the matter was dismissed as not being of great importance.

She was confined, for the sixth time, about the middle of February, 1860. The labor and her recovery were physiological. Four weeks after confinement, she was suddenly attacked with vomiting and abdominal pain, without apparent cause. On the following day, there was tenderness along the course of the colon and below the umbilicus. Three days later, the pain was very severe; at the same time, her abdomen became universally tympanitic; there was tenderness over the whole of it, and more tenderness over the colon than elsewhere. The tympanitis was more marked on the left, than on the right side. At first her pulse was 100. It soon rose to 120, and remained at that rate for a day or two. She was put on a diet of water-gruel. Fomentations were applied to her bowels, and opium was given in full doses. As soon as relief from pain was obtained, castor oil was administered. This was followed by several copious dejections, as if an accumulation of fæces had been removed. She experienced great relief at once. The pain, tenderness and tympanitis subsided. Her pulse soon fell to 84 and then to 72, and she readily convalesced. She described this attack as being altogether different from those which occurred, at considerable intervals, previously, and which have been already alluded to.

At about 3, A.M., of May 22d, she was suddenly seized with intense pain in the right side. This was soon followed by free vomiting and purging. During the evening previous, she had not felt quite so well as usual, and retired early in consequence. Otherwise she had no warning of the approaching attack. At 5 o'clock of the same morning, I found her rallying from apparent collapse. Her pulse was 80. Her extremities were cool, or rather almost cold, and her face pale. The pain had suddenly grown easier, but she was not altogether free from it, when I arrived. There was a spot of acute tenderness, about two inches in diameter, in the right hypochondriac region, or just below the end of the lowest true rib. There was no general abdominal tenderness, and no tympanitis. She lay on her back, with an inclination to the left side. Her respiration was short, thoracic, and sixteen in a minute. A long breath, or any motion of the body, was painful in the spot just described. Her intellect was clear, and she spoke distinctly, though feebly. Her tongue was clean. She had some thirst, but no appetite. There was no cough, or pain in the chest. She got one-eighth of a grain of sulphate of morphia, and, without repeating it, remained comparatively easy through the day. The same decubitus, however, and disinclination to move, continued. Neither was there any abatement of the local tenderness. Towards

night she began to complain of slight uneasiness throughout the abdomen, though firm pressure was well borne everywhere, except in the limited region alluded to. She took no food, and very little drink. By evening, her pulse rose to 100. She then got an additional dose of sulphate of morphia, and was quite easy after it.

At 3, A.M., of the 23d, there was a second attack, similar to the one twenty-four hours before. There was sudden and intense pain on the right side, where it was previously felt, and also increased tenderness. She had some eructations of wind, but did not vomit or purge. She was chilly, but experienced no well-marked rigor. By the time I reached her chamber, perhaps about 3 1-2, A.M., she was beginning to grow easier. Her pulse was 120, and feeble. Her skin was cool, extremities cold, and voice faint. Her decubitus was dorsal, with her knees drawn up. There was the same slow, and thoracic respiration, and the same pain on a long breath. After taking stimulants, and one-fourth of a grain of sulph. morphia, she rallied considerably. She then got some gruel, and retained it. During the day, there was a gradual increase of tenderness over the abdomen, and rather a diminution of the acute, local tenderness in the hepatic region. Still the abdomen never became acutely sensitive to pressure, nor was any tympanitis developed. She remained comparatively comfortable through the day, by taking one-eighth of a grain of sulph. morphia, every four hours. With the exception of this, and some brandy and wine and gruel, she took no food, or drugs. At night, her pulse was 112, and a little stronger. She reported herself easier, though there was no abatement of tenderness, nor greater willingness to move. During the night, she slept somewhat, and appeared to her attendants to be resting. By morning, however, she was moribund, and died at 9, A.M., of the 24th, fifty-four hours after the attack of the 22d.

When she had rallied a little from the sudden access of pain, on the morning of the 23d, she was anxious to know the cause of her suffering. I told her that she was probably suffering from the passage of a gall-stone, and briefly explained to her the nature and symptoms of such an accident. After hearing my statement, she said, that "if this was the passage of a gall-stone, she had passed several previously, for this attack was similar to the one which succeeded jaundice, seven years before, and to others which occurred afterwards."

It is worthy of note, that Mrs. ——— stated several times, during the two or three months antecedent to her death, to one or two of her friends, that she believed herself to be affected with some undiscovered disease of the liver, in consequence of a sensation of discomfort, uneasiness and gnawing in the hepatic region, which frequently troubled her. She never mentioned this to me. I learned it after her death from those to whom she described it.

In connection with the *post-mortem* appearances, this subjective symptom is of some value.

Post Mortem.—An examination was made by Dr. C. ELLIS, twenty-four hours after death. The following is his report of the result:—

“A little caseous matter was found at the apices of the lungs. There was considerable yellow fluid in the peritoneal cavity, apparently colored by bile only. There were no adhesions, and nothing to show absolutely the existence of inflammation. The coats of the gall-bladder were thickened; and in the cavity, there was a granular gall-stone, of an oval form, and more than half an inch in diameter. Near the fundus, there was an irregular ulcer, of a linear character, and stained of a green color; a passage, about one line in diameter, led from this to the external surface. There was another ulceration, of a similar character, near the outlet. The cystic and common ducts were dilated, and there were several small gall-stones in them. The liver had a peculiar soft, flaccid look, but in other respects it was normal. The other organs were normal.”

It appears from this that the cause of death was an ulcer, which perforated the coats of the gall-bladder. There was also evidence of chronic inflammation of that organ, but not of disease elsewhere.

Dr. Budd, in his work on the liver, states that “inflammatory diseases of the gall-bladder and gall-ducts, although of frequent occurrence, have been but little studied, and at present we have not materials for anything like a complete history of them.” This remark, by a writer of such acknowledged authority, is a sufficient reason for examining briefly the affection of which the above case is an illustration.

In an interesting chapter on inflammation of the gall-bladder and gall-ducts, Dr. Budd makes four varieties of inflammation of these parts, which he calls catarrhal, suppurative, croupal or plastic, and ulcerative inflammation. He says that the latter or ulcerative variety has been noticed, not unfrequently by observers, among the morbid appearances of remittent fever, yellow fever, typhoid fever, and in connection with various affections of the liver, or stomach, or duodenum, when from any cause the “passage of bile into the duodenum is stopped, so that bile and mucus are long retained and undergo decomposition in the gall-bladder.” In another place, he remarks that ulceration of the gall-bladder may occur “independently of fever or gall-stone, and when there is no stoppage of the common or the cystic duct.” Evidently, however, he regards the irritation of gall-stones or of unhealthy bile as the most frequent cause of ulcerative inflammation, when it occurs independently of fever or of disease of the neighboring viscera. Towards the close of his discussion of diseases of the gall-bladder and ducts, he remarks that “ulceration of the gall-bladder may exist without fever or other constitutional disturbance, and with

only occasional pain, and may be almost unheeded, till, by sloughing of the peritoneal coat, the contents of the bladder are poured into the cavity of the peritoneum. The symptoms that precede this accident are not such as to impress us with a notion of danger, and we require fuller knowledge than we now have of the circumstances in which ulceration of the gall-bladder occurs, to make us alive to their meaning." The case, which has just been recited, illustrates the truth of this statement.

Dr. Budd records only three cases of ulceration of the gall-bladder, occurring independently of other disease. The inference from his statements with regard to these, is that he had not met with more. One of these three came under his own observation; one, he quotes from Andral, and the third from Cruveilhier. He also details a fourth case, reported by Dance, in the *Archives Générales*, which was complicated with general suppurative phlebitis. But the phlebitis, as shown by a *post-mortem* examination, was probably consequent upon a perforating ulcer of the gall-bladder. The case, therefore, may be fairly regarded as one of independent disease of the gall-bladder.

Grisolle, in his *Pathologie Interne*, states "that in the present state of science, we may suspect a cholecystitis, but that it is impossible to make a certain diagnosis." He adds that the disease rarely exists spontaneously; and whether it does or not, he regards the prognosis as being always "very grave." When speaking of its termination, he says there are five or six observations, on record, of inflammation of the biliary passages, which have resulted fatally, and alludes to them as if they were the only ones he had met with. Watson dismisses the subject of diseases of the gall-bladder in a short paragraph of eleven lines; just long enough to say that they exist; that they are difficult to recognize; and that he shall not stop to investigate them. Copeland, in his *Medical Dictionary*, says: "the symptoms of inflammation of the gall-bladder or ducts are extremely fallacious." He places ulceration among the results of inflammation, and speaks of it as not unfrequently existing, though perforation of the gall-bladder he regards as a rare occurrence. He refers to the fact of its occurrence, but quotes no cases. He only gives the names of sundry authors who have recorded cases. Canstatt, in his *Handbuch der Medicinischen Klinik*, devotes two pages to inflammation of the gall-bladder. He describes it as almost always co-existing with hepatitis, duodenitis, peritonitis, or with gastric, bilious or typhus fever. He speaks of the possibility of perforating ulcer, but does not describe ulcerative inflammation as an independent disease. Dr. Geo. B. Wood uses similar language. He regards inflammation of the mucous membrane of the gall-bladder as a disease that is almost unrecognizable. He says, "it probably generally ends in resolution without any observable sign, unless perhaps a dull pain, or sense of uneasiness in the parts." He alludes, however,

to the possibility of perforation. Neither he nor Canstatt give any cases.

Here we have authoritative statements from English, French, German and American writers to the effect, that however frequently inflammation of the gall-bladder, and especially ulcerative inflammation of that organ, may co-exist with other diseases, and probably be caused by them, it rarely occurs as an independent disease; that when it does occur, it is recognized during life with great difficulty; and that it may involve the gravest consequences. In view of these facts, the case which has just been detailed assumes more than ordinary interest. It is an instance of independent disease of the gall-bladder and ducts, terminating fatally. It deserves a careful study, in order to ascertain if anything can be gathered from it, by which a similar affection might be recognized before it advanced to perforation. "It should always be borne in mind," says Dr. Budd, speaking of the gall-bladder, "that here a disease, attended with but little pain or fever, and at first with no alarming symptoms, and indeed trivial in itself, may, from its situation, prove mortal."

The attack of intestinal irritation, which followed the last confinement of Mrs. —, may be fairly set aside as disconnected with disease of the gall-bladder. The affection of the latter organ probably commenced as far back as the jaundice, which occurred in 1853, and seven years before its fatal issue. She probably passed, at that time, one or more gall-stones. During the period which elapsed between this attack and the fatal one, it is fair to infer, from her statements, that she had passed gall-stones several times. In the summer of 1859, she experienced an attack of unusual severity. During her subsequent pregnancy, she was very well, excepting an occasional uneasiness in the hepatic region. After her confinement, this uneasiness became gradually more and more marked, so much so that she spoke of it to her friends, though not to me. Suddenly, the final attack, which has been described, took place. It would seem, from this history, so far as anything can be inferred from a single case, that chronic inflammation and possible ulceration of the gall-bladder and ducts may be suspected, even in absence of disease of the liver, stomach or duodenum, and when no form of fever exists, if an individual, who suffers from the occasional passage of gall-stones, has persistent though slight discomfort and uneasiness, with some tenderness, in the region of the gall-bladder. How far it may be possible for such an affection, if it can be diagnosticated, to be mitigated or removed by treatment, I will not undertake to inquire at the present time.

THE "THROAT DISTEMPER" OF THE LAST CENTURY.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—I send you a little pamphlet, which I accidentally discovered in the Treadwell Library at the Massachusetts General Hospital, in a small bundle of books and pamphlets that Dr. Shaw was arranging to be bound. It is in the form of a "Letter to a Friend," with "Observations on that terrible Disease, vulgarly called the Throat-Distemper, with advices as to the Method of Cure." The occasion for the "Letter" will be immediately seen on referring to the remarks "To the Reader."

By a careful attention to the account of this epidemic, with its varying types and symptoms, in Elizabethtown, N. J., in the years 1734-5, and in Boston and Cambridge in 1738-40, it will be found to be manifestly the same disease which has raged epidemically and sporadically, and with great fatality, and has been described by different writers in different parts of Europe and America, from the period of our author to the present time; a disease which has received a diversity of names, from the prominence of some one symptom, but which now is mostly called diphtheria and membranous croup.

It is evident that our author saw both manifestations of the disease, as now described and understood, and his opinion is clear enough as to the connection of one with the other, when he calls the affection of the air-passages a "sprout from the same root" as that acting in the throat.

Whether these two affections, viz., diphtheria, with membrane upon some part of the cavity of the mouth, nasal fossæ, about the ears, on blistered surfaces, and on other regions of the body, and membranous croup, restricted in its application to membrane in some part of the air-passages, from the larynx downwards, are identical or not, it is not our intention now to enlarge upon.

But one of the main objects was to have this "Letter" re-printed for the medical world, as being curious, interesting and valuable, not only for its antiquity, but for the just rank and honor that it can claim and deserve for being one of the earliest, most concise and best monographs on the disease; exhibiting, too, great experimental knowledge and judgment in the proper discrimination of the different types of the disease, with their attendant symptoms; giving conditional instructions, advising certain remedial measures, and disapproving of any treatment that would uselessly annoy or weaken the patient.

It will be observed that he calls the disease "an eruptive military fever, the eruption sometimes resembling measles, smallpox and scarlet fever" (for which distemper it has been, he says, frequently mistaken).

It will be well also to refer to the remarks on diaphoretics, the local application of the vitriolic water (Roman vitriol—cupri

sulph. exsicc.) with a probang, or what amounts to the same thing, and to the *steaming* of the throat.

In this connection, a consultation may be interesting of "The Practical History of a New Epidemical Eruptive Miliary Fever, with an *Angina Ulcusculosa*, which prevailed in New England in the years 1735-6, by William Douglas, M.D." (Vide *The New England Journal of Medicine and Surgery*, by Drs. Channing and Ware, Sen., Vol. XIV., p. 1.)

In speaking of one of the classes referred to, he says, among the symptoms of *bad omen*, were those "where many *mucous* linings are expectorated, resembling the cuticle raised by vesications," "where, without any difficulty in swallowing, this difficulty has reached down the bronchia unto the lungs, with the symptoms of a New England quincy, and was erroneously deemed such: the deeper in the thorax the complaint, the greater the danger: in some young children, with scarce any appearance in the throat, spreading ulcers did form behind the ears in the place where infants have a natural issue or running. In some the tongue did throw off a slough or exuvia, retaining the impressions of the papillæ; being a mucus inspissated, and of the same nature with those mucous linings expectorated from the bronchia or œsophagus."

GEO. H. GAY.

[The pamphlet received from Dr. Gay, which was printed in Boston in 1740, is copied entire, below, without change of spelling or punctuation.—Eds.]

TO THE READER.

"The Reverend Mr. Dickinson, when at Boston nigh two Years since, being consulted by several gentlemen (anxious for themselves and others) about a most malignant Disease, which had raged for a long Time in the Place where he lives, and which had commenc'd its fatal Progress in these Parts, was desir'd to draw up his Observations in writing, with a View to printing the same for the public Benefit. Upon that Occasion he wrote the following Letter: which now that we have a fresh Alarm by a Return of that astonishing Distemper among us, it's thought a proper Season to publish it for a common Good.

"Several of our ablest physicians, upon the perusal of it, have express'd their Satisfaction in the Author's Account of the various Phenomena of the Malady, and his Method of Cure—His Observations are the Result of a long Series of Practice and Experience, and seem founded in the exactest Judgment. His Informations are as full and particular, as any we've seen, and judiciously deliver'd in the easiest Language, to accommodate unlearned Readers.—The surprizing Mortality of this Distemper is enough to attract every one's Attention; and in such an extraordinary Case every compassionate Friend to Mankind will be ready to impart any useful Reflections: Which is a sufficient apology both for the Author and the Publisher.

Cambridge, Aug. 5, 1740.

A LETTER, &c.

"SIR,—In Compliance with your Desire, I shall now communicate to you some of those Observations I have made upon that extraordinary Disease, which has made such awful Desolations in the Country, commonly called the Throat-Distemper.

"This Distemper first began in these Parts, in Febr. 1734,5. The long continuance and universal Spread of it among us, has given me abundant Opportunity to be acquainted with it in all its Forms.

"The first Assault was in a Family about ten Miles from me, which proved fatal to eight of the Children in about a Fortnight. Being called to visit the distressed Family, I found upon my arrival there, one of the Children newly dead, which gave me the Advantage of a Dissection, and thereby a better Acquaintance with the Nature of the Disease, than I could otherwise have had: From which (and other like) Observations, I came pretty early into the Methods of Cure that I have not yet seen Reason to change.

"There have few Distempers been ever known, that have put on a greater variety of Types, and appear'd with more different Symptoms, than this has done; which makes it necessary to be something particular in describing it, in order to set it in a just View, and to propose the Methods of Cure necessary in its several Appearances. And

"1. I take this Disease to be naturally an Eruptive milliary Fever: and when it appears as such, it usually begins with a Shivering, a Chill, or with Stretching, or Yawning; which is quickly succeeded with a sore Throat, a Tumefaction of the Tonsils, Uvula and Epiglottis, and sometimes of the Jaws, and even of the whole Throat & Neck. The Fever is often acute, the Pulse quick & high, and the Countenance florid. The Tonsils first, and in a little Time the whole Throat covered with a whitish Crustula, the Tongue furr'd, and the Breath fetid. Upon the 2d, 3d, or 4th Day, if proper Methods are used, the Patient is covered with a milliary Eruption, in some exactly resembling the Measles, in others more like the Scarlet Fever (for which Distemper it has frequently been mistaken) but in others it very much resembles the confluent Small Pox. When the Eruption is finished, the Tumefaction everywhere subsides, the Fever abates, and the Slough in the Throat casts off and falls. The Eruption often disappears about the 6th or 7th Day; tho' it sometimes continues visible much longer. After the Eruption is over, the Cuticle scales and falls off, as in the Conclusion of Scarlet Fever. If after the Crise of this Disease Purging be neglected, the Sick may seem to recover Health and Strength for a while; yet they frequently in a little Time fall again into grievous Disorders; such as a great prostration of Strength, loss of Appetite, hectic Appearances, sometimes great Dimness of Sight, and often such a weakness in the Joints as deprives them of the Use of all their Limbs; and some of them are affected with scorbutick Symptoms of almost every Kind.

"When this Distemper appears in the Form now described, it is not very dangerous: I have seldom seen any die with it, unless by a sudden Looseness, that calls in the Eruptions; or by some very irregular Treatment. But there are several other very different Appearances of the Disease, which are attended with more frightful & deadly consequences.

"2. It frequently begins with a slight Indisposition, much resem-

bling an ordinary Cold, with a listless habit, a slow & scarce discernible Fever, some soreness of the Throat and Tumefaction of the Tonsils; and perhaps a running of the Nose, the countenance pale, and the Eyes dull and heavy. The patient is not confin'd, nor any Danger apprehended for some Days, till the Fever gradually increases, the whole throat, and sometimes the Roof of the Mouth and Nostrils, are covered with a cankerous Crust, which corrodes the contiguous Parts, and frequently terminates in a mortal Gangreen, if not by seasonable Applications prevented. The Stomach is sometimes, and the Lungs often, covered with the same Crustula. The former Case is discovered by a vehement Sickness of the Stomach, a perpetual vomiting; and sometimes by ejecting of black or rusty and foetid Matter, having Scales like Bran mixed with it, which is a certain Index of a fatal Mortification.—When the Lungs are thus affected, the Patient is first afflicted with a dry hollow Cough, which is quickly succeeded with an extraordinary Hoarseness and total Loss of the Voice, with the most distressing asthmatic Symptoms and difficulty of Breathing, under which the poor miserable Creature struggles, until released by a perfect Suffocation, or stoppage of Breath.—This last has been the fatal Symptom, under which the most have sunk, that have died in these Parts. And indeed there have comparatively but few recovered, whose Lungs have been thus affected. All that I have seen to get over this dreadful Symptom, have fallen into a Ptyalism or Salivation, equal to a *petit Flux de Bouche*, and have by their perpetual Cough expectorated incredible Quantities of a tough whitish Slough from their Lungs, for a considerable Time together. And on the other Hand, I have seen large Pieces of this Crust, several Inches long and near an Inch broad, torn from the Lungs by the vehemence of the Cough, without any Signs of Digestion, or possibility of obtaining it.

"Before I dismiss this Head, I must observe that the Fever which introduces the terrible Symptoms now described, does not always make such a slow and gradual Approach: but sometimes makes a fiercer Attack; and might probably be thrown off by the Eruptions, and this Train of Terrors prevented, if proper Methods were seasonably used.

"3. This Distemper sometimes appears in the Form of an Erysipelas. The Face suddenly inflames and swells, the Skin appears of a darkish Red, the Eyes are closed with the Tumefaction, which also sometimes extends through the whole Neck and Chest. Blisters or other small Ulcers here and there break out upon the Tumor, which corrode the adjacent Parts; and quickly bring on a Mortification, if not by some happy Means prevented. Some that are thus affected, are at the same time exercised with all the terrible internal Symptoms above described; and some with none of them. If this inflamed Tumor be not quickly discussed, it will (I think) always prove mortal.

"4. Another Appearance of this Disease is in external Ulcers; which break out frequently behind the Ears; sometimes they cover the whole Head and Forehead; sometimes they appear in the Arm-Pits, Groins, Navil, Buttocks or Seat; and sometimes in any of the extrem Parts. These are covered with the same Kind of whitish Crustula above described, which also corrodes the contiguous Parts; and quickly, if not prevented, ends in a Mortification. I have ordinarily observed, that if these outward Ulcers are speedily cured, the Throat and internal Parts remain free from the abovementioned terrible Symp-

toms; otherwise the miserable Patient must pass thro' the whole tragical Scene of Terrors before represented, if an external Gangreen don't terminate his Agony and Life together.

"5. Sometimes this Disease appears first in Bubo's under the Ears, Jaws, or Chin, or in the Arm-Pits, or Groin. These, if quickly ripened, make a considerable Discharge; which brings a salutary end to the Disease; otherwise they quickly end in a fatal Mortification; or else bring on the whole foremention'd Tragedy.

"6. This disease appears sometimes in the Form of a Quinsey. The Lungs are inflamed, the Throat and especially the Epiglottis exceedingly tumefied. In a few Hours the Sick is brought to the Height of an Orthopnœa; and cannot breathe but in an erect Posture, and then with great Difficulty and Noise. This may be distinguished from an Angina, by the Crustula in the Throat, which determines it to be a Sprout from the same Root with the Symptoms described above. In this Case the Patient sometimes dies in twenty four Hours. I have not seen any one survive the third Day. But thro' the divine Goodness these symptoms have been more rarely seen among us, and there have been but few in this Manner snatched out of the world.

"As the Symptoms of this Distemper are very different, so the Methods of Cure should be respectively accommodated to them; and I shall therefore consider them distinctly.

"When this Distemper makes its Attack with the Symptoms of a high Fever, a florid Countenance &c. (as in the first Case described) the first Intention, to be pursued towards a Cure, is to bring out the Eruptions as soon as possible; to which End, I order the Patient to be confin'd in Bed, and put into a gentle breathing Sweat, till they appear. A Tea made with Virginian Snake-Root and English Saffron, with a few Grains of Cochineal; A Posset made with *Carduus Mariæ* boil'd in Milk, and turn'd with Wine, the *Lapis contrayerva*, or Gascoign-Powder; any or all of these, as occasions require, answer to this Purpose, and seldom fail of Success.

"One of the most dangerous Circumstances that attend this Disease, is a Looseness, that frequently happens upon the first Appearance of the Eruptions; which must be speedily restrain'd, and the Belly kept bound, lest the morbidick Matter, evaporated by the Pores, be recalled into the Blood, and prove suddenly fatal.—To that Purpose, I ordinarily advise to Venice-Treacle, or liquid Laudanum, which commonly answer all intentions. But if the Patient should be in a dozing Habit, that these cannot be used, or if these should fail of Success, any other Astringent may be used that is proper in a Diarrhœa.

"The Ulcers in the Throat should be constantly cleansed, from the Time of their first Appearance. I have found the following Method most successful to this Purpose. Take Roman Vitriol, let it lie as near the fire as a Man can bear his Hand, till it be thoroughly calcined and turn'd white: Put about eight Grains of this into half a Pint of Water; Lay down the Tongue with a Spatula; and gently wash off as much of the Crust as will easily separate, with a fine Ragg fastened to the End of a Probe or Stick, and wet in this Liquor made warm. This Operation should be repeated every three or four Hours.

"After the Eruptions are quite gone, the Patient should be purged two or three Times, to prevent the Consequences above described; and this Rule should be observed in every Form of the Disease.

"If after the Crise of this Disease, in any of its Appearances, the

Sick should fall into any of the Disorders mentioned under the first Head, such as Loss of Strength, a feverish Habit, Dimness of Sight, Weakness of the Joynts &c., Repeated Purging, as far as the Patient's Strength will bear, with Elixir Proprietatis, given twice a Day in a glass of generous Wine, will constantly remove these Difficulties.

"When this Disease makes a more slow and leisurely approach with a lingering Fever, pale Countenance &c. as described in the second Case, all Attempts to bring out the milliary Eruptions seem in vain. And therefore, tho' the Sick may be very much relieved by the diaphoretick Medicines abovementioned, if repeatedly used during the Course of the Illness; yet these are not to be depended upon for a Cure. But a brisk Purge should be also directed every third Day, and those Cathartics that are mixt with Calomel or Mercurius dulcis, are most likely to be serviceable, where the Age and Strength of the Patient will bear it.

"If there be an extream nauseating, and vehement Sickness of the Stomach, that can't be otherwise quieted, an Emetick seems necessary, tho' I have not found Encouragement to use vomiting Physick in any other Case.

"The internal Ulcers of the Throat should be treated as above directed; but if there be a great Tumefaction of the Glands, I order externally a Plaister of Diachylon cum Gummi and de Ranis cum Mercurio mixt; and internally the following Fumigation. Take Wormwood, Penny-royal, the Tops of St. John's Wort, Camomile-Flowers and Elder-Flowers, of each equal Parts; boil very strong in Water; when boil'd, add as much Brandy or Rum as of this Decoction; steam the Throat, thro' a Tunnel, as hot as can be born, three or four Times a Day.

"When the Lungs are seized with this cankerous Crustula, which is indicated by the Cough and Hoarseness above described, Mercurial Catharticks frequently repeated, seem the best of any Thing to promote Expectoration. I have also found Success in the Use of the Syrup of red Poppies and Sperma Ceti mixt.

"When this Distemper appears in the Form of an Erysipelas, I have used the following Fomentation with good Success. Take Wormwood, Mint, Elder-Flowers, Camomile-Flowers, the Tops of St. John's Wort, Fennel-Seeds pounded, and the lesser Centaury, equal Parts; Infuse in good Brandy or Jamaica Rum, in a Stone-Jugg well stop'd, and keep hot by the Fire: wet a Flannel Cloth with this; and after moderately squeezing out the Liquor, apply three or four double to the Tumor, as hot as can be born, every Hour.—In this Case I repeat Purging, as above directed.

"As for the external Ulcers above described (under the 4th Head) they may be always safely and speedily cured, by applying once or twice a Day a good thick Pledget of fine Tow dipt in the above described vitriolick water. I have never known this fail in a single Instance, when seasonably used. But then it must be observed, that some of these Ulcers will require this Water much sharper with the Vitriol, than others will bear. It should be so sharp as to bring off the Slough, dry up the flow of corrosive Humors, and promote a Digestion: but it must not be made a painful Caustick. In this the Practitioner's Discretion will guide him.

"I need not say any more respecting the Bubo's, mentioned under the fifth Head; but that they must by all possible Means be ripen'd

as quick as they can; and launced as soon as they are digested and found to contain any Pus.

"I have not yet found any effectual Remedy in the 6th and last Case described.

"Upon the Disease in general, I have made the following Remarks; which perhaps may be of some Use.

"I have observ'd, that the more acute the Fever is on the first Seizure, the less dangerous; because there's more Hope of bringing out the Eruptions.

"I have observ'd, that there's more Danger of receiving Injury from a cold Air in this, than in any eruptive Fever I have seen. The Eruptions are easily struck in; and therefore there ought to be all possible Care, that the Sick be not at all exposed to the Air, till the Eruptions are quite over and gone.

"I have also observ'd, that there's much greater Danger from this Disease in cold Weather, than in hot. In cold Weather it most commonly appears in the Form described under the second Head; while on the contrary, a hot Season very much forwards the Eruptions.

"I have frequently observ'd, that once having this Disease is no Security against a second Attack. I have known the same person to have it four Times in one Year; the last of which prov'd mortal. I have known Numbers, that have passed thro' it in the eruptive Form in the Summer Season, that have died with it the succeeding Fall or Winter: tho' I have never seen any upon whom the Eruptions could be brought out more than once.

"I have ordinarily observ'd, that those who die with this Disease, have many Purple Spots about them; which shews the Height of Malignity and Pestilential Quality in this terrible Distemper.

"Thus, Sir, I have endeavor'd in the most plain and familiar Manner to answer your Demands. I have not attempted a Philosophical Inquiry into the Nature of this Disease, nor a Rationale upon the Methods of Cure. I have meant no more than briefly to communicate to you some of my Experiences in this Distemper, which I presume is all you expect from me. If this proves of any Service, I shall have Cause of Thankfulness: If not, you'll kindly accept my willingness to serve you, and to contribute what I can towards the Relief of the afflicted and miserable.

I am Sir,

Your most humble Servant,

JONATHAN DICKINSON.

Elizabeth Town, N. Jersey, Febr. 20, 1738,9.

POSTSCRIPT.

"Since I wrote this Letter, I am inform'd by a Gentleman of the Profession, who has had very great Improvement in this Distemper, That he has found out a Method of Cure, which seldom fails of Success in all the Forms of this Disease herein described, (the first, fourth and fifth only excepted, which should be treated as above directed) and that is a Decoction of the Root of the Dart Weed, or (as it is here called) the Squaw-Root. He orders about an Ounce of this Root to be boiled in a Quart of Water, to which he adds when strain'd a Jill of Rum and two Ounces of Loaf-Sugar; and boils again to the consumption of one quarter Part. This he gives his Patients frequently to drink, and with this orders them frequently to gargle their Throats; allowing no internal Medicine but this only, during the whole Course of the Disease, excepting a Purge or two in the Conclusion. I have

seen a surprising Effect of this Method in one Instance ; and shall make what further Observations I can : And if this answers my present Hopes, I shall endeavor to give you further Information.

" The Dart-Weed grows with a strait stalk six or eight Foot high, is jointed every eight or ten Inches apart ; and bears a large white Tassel on the Top, when in the Flower. The Root is black and bit-terish."

EXCISION OF THE CLAVICLE.

THE following case of excision of the clavicle is reported by WM. M. FUQUA, M.D., in the November number of the *Maryland and Virginia Medical Journal*.

" An Irishman, aged 40, of good health, presented himself at my office on the 7th of October, with a carious clavicle.

" The original cause, from his account, was from carrying a heavy load of tools upon his shoulder, thereby bruising the integument over a portion of the collar-bone. He is a rock mason by trade. It was not long before he had pain along the clavicle. Soon it began to discharge pus, and after a lapse of several months there was a solution of continuity. The outer two-thirds of the bone was enlarged to a considerable extent, with an unhealthy cicatrix along its middle third. The inner extremity was diseased to within three-quarters of an inch of its sterno-clavicular articulation, as was found after removal of the bone. I determined to remove the entire bone, which was accordingly done on the 10th of October : Drs. Peticolas, Crenshaw, Clopton and Brock being present. I first placed him under the influence of chloroform, which, by the by, so tranquillized respiration as to assist me very materially in the operation. The shoulders being elevated, an incision, beginning at the sterno-clavicular articulation, was carried along the line of the clavicle to its outer extremity. The pectoralis major was then severed from its attachments and turned back. Along the upper border of the bone a few fibres of the sterno-mastoid were divided, and the dissection proceeded superiorly until the platysma and trapezius were detached. On turning these back, the bone was exposed ; then disarticulated at its extremity (outer). In like manner, the inner extremity was exposed ; not all of it, however, was found diseased. It was determined, therefore, to remove only the carious part. This was done by passing a chain saw beneath the fragment, and with a few strokes it was removed. Having cleansed the wound thoroughly, the extremities were sutured, whereas the intervening portion was held together by adhesive strips. He was then put to bed.

" Oct. 10th.—Expresses himself as feeling badly ; face flushed ; pulse 90 ; slept none last night. Morph. sulph., gr. $\frac{1}{4}$.

" 11th.—This morning, he says, he is much better. Shoulder painful and considerably swollen ; removed sutures ; union had taken place at either extremity. Daily the wound injected with dilut. chlorinated soda, and adhesive strips applied.

" He is now walking about, the wound having almost entirely healed."

Bibliographical Notices.

Memorie et Osservazioni di Chirurgica Pratica. Di F. PALASCIANO, Dottore in Medicina, Prof. di Anatomia e Chirurgia nel grande Ospedale degl' Incurabile, etc. etc. 1858-60. 2 vols., 8vo. Pp. 248 and 222. With Engravings.

DR. PALASCIANO, of Naples, the author of these volumes, is no less distinguished for his eminent abilities as a surgeon than for his familiarity with the medical literature not only of his own country, but of that of England, France and Germany. The present work consists of a series of memoirs on the following subjects:—I. On stricture of the intestine in strangulated hernia, and the method of dilating it by invagination. II. On the therapeutic advantages of the suture, in gangrene of the intestine in hernia. III. An exposition of the principles of the Neapolitan school in the diagnosis and treatment of uterine hæmorrhage. IV. On immovable apparatus in the treatment of fractures. V. On cephalotripsy, and the cephalotribe of Tarsitani. VI. On urethrotomy and vesical paracentesis.

It is not our intention to review Dr. Palasciano's work, which, indeed, we have not completely read; we wish merely to bring it before the notice of the profession here, as containing many original and interesting observations on surgical subjects, which will repay the trouble of reading to those who are acquainted with the Italian language. We cannot, however, forbear to present to our readers the author's method of relieving a complication of strangulated hernia, which he believes to be very common, and which is scarcely alluded to by authors—a permanent stricture of the intestine, at the seat of strangulation, often attended with disastrous consequences. The incision of the hernial sac and of the ring having been performed, the operator draws down a sufficient length of intestine to display the strictured part, and supporting it with one hand, with the little finger or index of the other invaginates the upper portion of the intestine, where it is dilated, into the strictured part, and either by urging the finger downwards by means of the other hand, which draws the lower part of the intestine upwards, or by separating from each other two fingers inserted into the strictured part, gently dilates the contraction, just as one fits a glove nicely on the fingers. The intestine is then returned into the abdomen in the usual way.

We are glad to see that Dr. Palasciano, in common with the profession generally in Naples, gives a decided preference to the use of sulphuric ether over chloroform as an anæsthetic agent, as being equally efficacious, and far more safe. In confirmation of this, he prints a letter which he received from Dr. Hayward, of this city, expressing his views on this subject, which are well known to our readers. The author has presented a copy of his work to the Boston Public Library, where it can be consulted by those who are interested in Italian surgery.

M.

Bed-Case; Its History and Treatment. By WALTER CHANNING, M.D., Honorary Fellow of the Obstetrical Society of London. Pp. 52. Boston: Ticknor & Fields.

THIS interesting and instructive little monograph, which appeared in our own pages, has been published by itself by Ticknor & Fields,

and we doubt not will meet with a ready sale. United with a large experience, its distinguished author possesses a most agreeable style and manner of communicating the results of his reading and observation, and in this paper has made a valuable addition to the literature of a disease with which every practitioner of much experience must have been more or less familiar.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, NOVEMBER 15, 1860.

MASSACHUSETTS MEDICAL COLLEGE.—On Wednesday last, the Introductory Address was delivered at the Medical College in Grove St., before a large audience, by Prof. Jackson. The subject of the Address was most appropriate at a time when so many young men are commencing their studies, and others more advanced seem to be in doubt about the value of their labors or the present position of the profession.

Some of the most important discoveries of the present age were alluded to, such as leucocythæmia and the diseases to which Bright and Addison have given their names. The fact that Bright's disease had been described long before that distinguished physician gave his views to the world, was probably new to many. But these contributions to medical science are nothing as compared with the discovery of the anæsthetic properties of ether. If the therapeutical record be the most unsatisfactory of all, the introduction of anæsthesia will mark the present century to the end of time. Taking into consideration the safety and efficacy of ether, and the danger attending the inhalation of chloroform, Dr. Jackson was fully justified in totally condemning the use of the latter.

We would gladly allude to many other points in this able address, which was received with the attention it deserved, and, we do not doubt, gave to those present a better and higher idea of the position now occupied by the profession.

MASSACHUSETTS MEDICAL SOCIETY.—An adjourned meeting of the Massachusetts Medical Society was holden on November 7th, at 10 o'clock, at the rooms in Temple Place. Among other items of business, it was

Voted, To concur with the Councillors in the adoption of the resolution passed by them at their stated meeting in October, appropriating to the discharge of the debt of the Society such a sum as has heretofore been appropriated to the annual dinner, to the amount of six hundred dollars annually.

It was also voted to accept the legacy of the late Hon. Jonathan Phillips.

A photographic copy of a picture of the first President of the Society, the late Dr. Edward A. Holyoke, was presented by Dr. James Jackson; whereupon it was voted that the thanks of the Society be presented to Dr. Jackson for his valuable and appropriate gift. At 11 o'clock, the Society adjourned, *sine die*.

NEWS FROM THE ARCTIC EXPEDITION.—We regret that Dr. Longshaw, who accompanied Dr. Hayes on his present expedition to the Arctic regions, as surgeon and naturalist, has been obliged to return home in consequence of a failure of the eyesight, produced by the peculiar light of the ice-blink, together with the incessant labors devolving upon him. He left the vessel at Tescuishak, a point about two degrees above Upernavik, on the 5th of September, returning home by way of St. Petersburg, Copenhagen and London. He brings despatches from Dr. Hayes for the Committees at Boston, New York, Philadelphia and Baltimore, who aided in fitting out the expedition, and to the General Government at Washington. He reports the expedition as progressing favorably. At the time he left, the vessel was in winter quarters, where she would remain until June next.

MESSRS. EDITORS,—In a recent issue of the JOURNAL, the circumstance of a young woman taking four grains of morphine at one time, is alluded to, as an extraordinary dose. A few months since, I was consulted by a young man, for advice as to the best method of breaking off the habit of taking morphine. I inquired the dose he usually took. He replied, he was not particular, but about a *fifth of a bottle full*—more or less. The social position of the gentleman was such, I could not reasonably doubt his assertion, yet my expression betrayed incredulity. He requested me to see him at 7 o'clock the same evening, to witness the exhibition of the usual dose. He took a fresh bottle (1-8 oz.), emptied it upon a sheet of white paper, with his pocket-knife divided it into five parts—more or less, threw one portion into some water, and swallowed it. I passed the evening in his society without noticing any apparant effect whatever. Afterwards, questioning him as to the effects, he remarked he perceived none, except a pain across the kidneys, followed by diuresis. If he deferred the habitual dose beyond a certain number of hours, perspiration came on, his system felt relaxed; otherwise he perceived no effect whatever. The treatment I advised, was, to reduce the first bottle by one grain, and increase the reduction gradually. Allow me here to observe, the use of narcotics is indulged in by the American community to a much greater extent than is even divined by physicians themselves.

C. S. S.

Sag Harbor, N. Y., Nov. 8, 1860.

MORTALITY OF PROVIDENCE, R. I.—There were 98 deaths in Providence in October, which is an unusually large number for the month. In October, 1859, the number was 68, and the annual average for five years preceding the present, was 73. Notwithstanding this large increase in the mortality of the month, there is nothing in the returns which indicates any unusual sickness, and the city is fully as healthy as in October, 1859. The per centage of deaths from zymotic diseases during the last month was considerably less than in October of last year. There were six deaths last month from diphtheria, which is the same number as in October, 1859. Of the six deaths from this cause, three were in one family. There is much less of this disease in the city now, than at the corresponding period of last year.

DIPHThERIA.—In St. Louis, for the week ending Oct. 20th, *twenty* deaths are recorded as having occurred from diphtheria, out of the

whole number of 113. This gives a little over 17 per cent., and coincides with reports which have reached us otherwise, of the fearful severity with which the disease is spreading in some parts of the Western States, especially Illinois and Missouri. In New York and Philadelphia, the mortality reports show a decrease in this disease, and an increase of scarlatina for the last few weeks.—*Med. & Surg. Reporter.*

CHANGES AND APPOINTMENTS IN MEDICAL SCHOOLS.—The Medical Department of the University of Michigan has sustained a loss in the death of Dr. Samuel Denton, Professor of Theory and Practice, and of Pathology. The chair thus rendered vacant has been filled by the election of Dr. A. B. Palmer, transferred from the professorship of Materia Medica, Therapeutics, and Diseases of Women and Children in the same school. The last-mentioned chair remains still vacant, and its duties have been distributed among the members of the Faculty. The new Professor of Practice and Pathology has but recently returned from a tour in Europe, and is well and favorably known to his brethren throughout the United States by his editorship of one of the most useful journals in the country.—*N. A. Med.-Chir. Review.*

MUSEUM OF THE PHILADELPHIA HOSPITAL.—After a conference with the Medical Board, the Board of Guardians adopted a resolution establishing a museum for the preservation of pathological and other specimens, and a considerable fund has been appropriated for obtaining fixtures and materials for the basis of a cabinet. A yearly endowment will be granted, and Dr. Agnew has been appointed curator of the museum.—*Ibid.*

ARMY NEWS.—The Board of Army Surgeons, which assembled in Baltimore on the 20th of September, was composed of Surgeons C. A. Finley, Charles S. Tripler, and N. S. Jarvis, with Assistant Surgeon Charles H. Smith, Recorder.

Sixteen candidates were authorized to present themselves for examination. Of this number eight failed to appear or withdrew, and eight were examined in full. Of this latter number five were found qualified, and have been appointed Assistant Surgeons in the Army of the United States. The names of the successful gentlemen are as follows, in the order of their relative merit:—Dr. Campbell Short, of Maryland; Dr. A. Francis Mechim, do.; Dr. Clinton Wagner, do.; Dr. David P. Ramseur, of North Carolina; Dr. William F. Cormick, of Virginia.

Drs. Mechim and Wagner are graduates of the University of Maryland, the latter having been clinical clerk at the Baltimore Infirmary for several years past. Drs. Short and Cormick are graduates of the University of Pennsylvania, and Dr. Ramseur (we understand) of the University of New York. The Board also examined Assistant Surgeons P. G. S. Ten Broeck, Lyman H. Stone and Edward W. Johns for promotion, who were all found qualified. Having completed the business before it, the Board adjourned *sine die* on the 6th of October.

Owing to the small number of candidates examined, the Board was not able to obtain a sufficient number of qualified gentlemen to provide for any vacancies which may happen within the coming year, and consequently another Board will be convened in the spring. Candi-

dates desirous of appearing, should make application to the Secretary of War at Washington, and forward to him testimonials in regard to moral character and good standing.—*Maryland and Virginia Medical Journal*.

THE MAN THROUGH WHOSE HEAD AN IRON ROD PASSED, STILL LIVING.—It will be remembered by many of our readers that in December, 1848, was published in this JOURNAL, an account, by Dr. Harlow, then of Cavendish, Vt., of the remarkable case of the passage of a rod of iron through the head of a man engaged at the time in blasting rocks. This rod, or tamping iron, as it is technically called, was round and smooth, about three feet seven inches in length, and weighed about 13 pounds. A correspondent of the *Ohio Medical and Surgical Journal* thus alludes to this patient, who, it seems, is still living in Chili:

“A few months ago we had occasion, in some clinical remarks, to make mention of this remarkable case, in which we stated that, though the man survived, we were not informed as to the mental and general condition in which the injury left him.

“Dr. Henry Trevitt, of Valparaiso, South America, who was present, at once replied to our remark that he knew Gage well: that he lived in Chili, where he was engaged in stage driving; and that he was in the enjoyment of good health, with no impairment whatever of his mental faculties.

“Dr. Harlow, of Cavendish, Vt., in whose practice the case occurred, described the wound as commencing just anterior to the ramus of the inferior maxillary bone of the left side, taking a direction upward and backward toward the median line, passing through the left anterior lobe of the cerebrum, and making its exit at the junction of the coronal and sagittal sutures; lacerating the longitudinal sinus; extensively fracturing the frontal and parietal bones; breaking up a large portion of the brain, and protruding the globe of the left eye from its socket by nearly one half of its diameter.”

LOSS OF LIMBS AS AFFECTING LONGEVITY.—John C. Messer, M.D., R.N., Assistant Surgeon at Greenwich Hospital, Eng., publishes in the *Edinburgh Medical Journal* for October, a statistical account of the pensioners and officers in that institution who have lost one or more limbs, either in part or wholly. The following is the summary which the writer gives of his novel investigations:—

“The present average age of forty such, now living, is 69·2.

“Of those who have died in the Hospital since 1846, who had previously lost limbs, the average age was 67·6.

“During the five years, from June, 1854, to June, 1859, the average age of pensioners dying in Hospital has been 71·3 years.

“We have thus the following data:—

“Average age at death of all pensioners in five years, 71·3 years.

“Average at death of pensioners who have lost
limbs in thirteen years, - - - - - 67·6 “

“Average of pensioners now alive who have lost
limbs, - - - - - 69·2 “

From which we may conclude that the pensioners who have lost limbs do not arrive at so great an age as those who have not, the difference being in the proportion of 71·3 to 67·6. At the same time we notice that the pensioners now alive who have lost limbs, have a higher ave-

rage age than those who have died during the last thirteen years under similar circumstances—a fact apparently without adequate reason.”

INAUGURATION OF THE MUSEUM OF COMPARATIVE ZOOLOGY.—On Tuesday, the 13th, the interesting ceremony of opening the new building erected for the Museum of Comparative Zoölogy, connected with Harvard University, took place at Cambridge. The keys of the institution were presented to Gov. Banks, President of the Board of Trustees, by Dr. Jacob Bigelow, Chairman of the Building Committee, who made some very appropriate and interesting prefatory remarks, which were replied to by Gov. B. President Felton made an address, and was followed by Prof. Agassiz, the Curator and Director of the new institution, who gave a brief history of the successive steps which have, within two short years, resulted in securing, besides a large collection of specimens and five acres of land from the University, the munificent sum of \$225,000 for the benefit of the Museum. In comparing it with similar institutions in the old world, Prof. A. gave the gratifying assurance that already “we have outrun all the Museums of the European Universities, excepting those placed in large capitals, and that among these, we would probably occupy the ninth or tenth place.” The Jardin des Plants and the British Museum are of course far above us. Gov. Banks then made the inaugurating address, formally dedicating the institution to the high purposes for which it has been so auspiciously founded.

CRIMINAL ABORTION.—A printed account of the proceedings of the Scott County (Iowa) Med. Society has been received. A series of important and well-expressed resolutions were passed on the subject of criminal abortion, which we are unable to insert this week, but which we cannot refrain from alluding to as creditable to the flourishing association which has sent them forth.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, NOVEMBER 10th, 1860.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	40	33	73
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	35.9	35.9	71.8
Average corrected to increased population, . . . . .	..	..	81.2
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infan.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
14	0	5	2	0	0	0	7

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	29.956	Highest point of Thermometer,	60°
Highest point of Barometer,	30.192	Lowest point of Thermometer,	32°
Lowest point of Barometer,	29.700	General direction of Wind,	N. W. & West.
Mean Temperature,	47° 0	Whole am't of Rain in the week	1.263

MARRIED.—In New York City, Nov. 7th, Ward C. Pardee, M.D., to Miss Mary E. Starr; John L. McDermutt, M.D., of New York, to Miss Emily H. Barnum, of Jersey City.—In New Utrecht, L. I., Nov. 7th, Frederick C. Demund, M.D., to Miss Phebe J. Emmans.

Deaths in Boston for the week ending Saturday noon, November 10th, 73. Males, 40—Females, 33.—Accident, 3—apoplexy, 2—inflammation of the bowels, 1—congestion of the brain, 2—burns, 1—cancer (of the uterus), 1—consumption, 14—convulsions, 3—croup, 1—debility, 1—puerperal disease, 2—dropsy, 1—dropsy of the brain, 6—drowned, 1—scarlet fever, 5—typhoid fever, 7—rupture of the gall-bladder, 1—gastritis, 1—intemperance. 2—congestion of the lungs, 1—inflammation of the lungs, 2—marasmus, 2—old age, 1—rheumatism, 2—spina bifida, 1—injury of the spine, 1—suicide, 1—syphilis, 1—tetanus, 1—tumor (ovarian), 1—unknown, 3—suppression of urine, 1.

Under 5 years, 23—between 5 and 20 years, 10—between 20 and 40 years, 18—between 40 and 60 years, 17—above 60 years, 5. Born in the United States, 43—Ireland, 21—other places, 9.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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No. 17.

INTERMARRIAGE AMONG THE SANDWICH ISLANDERS.

[The following interesting communication is extracted from a paper read by Dr. C. F. Winslow, of this city, before the New England Historic-Genealogical Society. We think it proper to state that it is not to be regarded or criticized as an exact scientific paper. The statements are necessarily vague, owing to the source from which they are derived, and cannot therefore be used rigorously in opposition to the more exact statistical facts which bear upon the influence of consanguinity in causing deterioration of the human race. Still, they possess a value and interest of their own, and throw some light upon the history and peculiarities of the Sandwich Islanders.

In the spring of 1850, while the author of the article was travelling around the North coast of West Maui, he was overtaken by a storm, and compelled to pass the night in a deep valley, where he met a venerable man, 86 years of age, who was present at the conflict in which Captain Cook lost his life. He proved to be one of the ancient historians of the race, and from him Dr. W. obtained the following information.—Eds.]

The Hawaiian race is, perhaps, one of the most kind, gentle and hospitable in natural disposition, on the globe. Their savage nature and habits have always been exaggerated from the days of Capt. Cook, for the first knowledge of these Islanders was connected with his violent death by their hands. But no person nor people were ever treated more kindly by Christians, than he and the crews of his vessels by those simple and untutored pagans. He drew upon them for almost endless quantities of refreshments of the utmost value to his expedition, even exhausting their stores, and returned them little compensation. He deceived them, and palmed himself off on them for a god; and abusing their simplicity, ignorance and confidence, for the purpose of more easily ob-

taining their offerings of food, he allowed himself even to be worshipped. For a comparatively trifling offence, he allowed an attack to be made on innocent persons, which resulted in the death of chiefs who were viewed by the common people as little less than divine. If ever a foreigner ought to be punished with summary death for abuse of national confidence, the invasion of the just rights of the rulers of a weak community, and the indiscriminate and un pitying slaughter of its people, Cook deserved the treatment which he received from the Hawaiians. Their hearts, however, were so kind that he would not have met with the fate which befel him, had not the excitement of the multitude around him been so great, and a fear pervaded them, at the moment, that he intended to perpetrate further bloodshed upon them. From that day to quite a recent period, they have been accounted savages, and some even now suppose they were cannibals at the time the American missionaries went to reside among them, in 1820. But Portlock, who visited the Islands soon after Cook's expedition had made them known, and who went freely and unarmed among the natives, speaks of their gentleness, hospitality and goodness; and notwithstanding he often suspected designs of mischief, he received only benefits and kindness. So, if the whole truth could be known respecting the intercourse of certain vessels with the Hawaiians, where they have been represented to have acted with barbarity, I am strongly inclined to believe, from what I personally know of them and of their history, that facts would be discovered affording some apology for their revenge, and exonerating them from the appellation of "savages."

The vice, however, which does attach to them, the notoriety of which cannot be disputed—a vice, indeed, which the missionaries have wholly failed to reach or diminish, is that of indiscriminate sensual intercourse and incest.

It is upon the origin of this evil, interwoven as it was into the very foundation and constitution of the sacerdotal and secular authority of the chiefs, that I hope to be able to throw some light by historic research; and I hope still further to show the cause of its permanency, and the secret obstacle to the success of the excellent and indefatigable missionaries who have resided so long among them, and for whose personal examples and efforts I can vouch from long observation of their habits.

Kiha, whose authority may be considered as good as that of any native historian since the missionaries visited the Islands, informed me, after bringing the genealogy of the gods down to mortals, that Wakea, who was the first chief, married Papa, a goddess; and from that union sprang a daughter, Hoohokuokalani. Wakea was then commanded by the gods, through this high priest, to cohabit with his daughter. From this incestuous connection sprang Haloa, and the command was transmitted from Wakea to Haloa, direct from the gods, that the blood of the royal line should be preserved

pure to the end of time, after this fashion. With Haloa, said Kiha, began the generation of kings and chiefs who were real men; and it was the common custom from the first chief down to Kaukeauli—the late King Kamehameha III.—for the highest chief to have incestuous intercourse with his daughter, or next of kin, and for the issue of that connection to be the reigning chief. This was the way in which the highest blood was preserved, and rank always descended on the side of the woman.

These are curious and important facts, which, when traced into their historical developments, explain many things that heretofore have been considered unique, obscure, and strangely and viciously persistent among the Hawaiian race. In all times, and among all nations, the common people adopt the practices of their superiors.

It has always been known that power became hereditary on the female side. This is a historical fact, familiar to the missionaries. Its explanation, however, is only now announced by my accidental meeting with that remarkable native sage in the lonely and beautiful valley of Kahakaloa. The highest female chief, or rather the nearest female to the royal ancestry and the divine head, has always been known to be equally or closely associated in the government. Kaahumanu was as imperial in her abilities, character, and power, as Elizabeth of England, Catharine of Russia, or Zenobia or Cleopatra of old, and may well be classed in force of character with this category of remarkable women. When I visited the Islands in 1844, Kikauluohi, the highest female chief then living, was the successor of Kaahumanu and Kinau (all widows of the renowned conqueror of the group, Kamehameha I.), and she was associated equally in the government with Kaukeauli or Kamehameha III., under the title of premier. She was a woman of gigantic frame, and of imperial and dangerous will. Her husband, Kenaina, was a chief of high rank, but had no influence, except as a noble or large landholder. It has been reported of Kikauluohi, and is believed by many at the Islands, who knew her character (although, in justice to her memory, I will say it is doubted by others), that she secretly caused the death of the only child that Kamehameha III. had by Kalama, the Queen, who was a common native woman of great beauty, but wholly without rank or chief-blood. The death of this child was said to have been effected, that her own offspring by Kenaina might come to the throne, and that no regal authority should become invested in an heir rendered illegitimate by the fact of not having descended from the highest female-chief-blood. If she committed or instigated this crime, I should believe, from what I have learned of the binding effect of traditional law touching the descent and the source of inherent and sovereign power in the highest female blood, that she had less regard to the elevation of her own offspring to the throne, than to the preservation and purity of the royal stock, according to the traditions of her ancestors, as they descended from the gods. The present King, Alexander,

styled Kamehameha IV., has married the daughter of the highest female chief, and associates his sister, Victoria, with him in the government, whose rank is higher than that of the Queen. Thus he follows the customs of his predecessors.

The late King, Kamehameha III., had a sister named Nahienae-na. That she might be nurtured in the most Christian way, and knowing the influence which the lives and practices of the highest chiefs exerted on the common people, the Rev. Wm. Richards took her, when quite young, into his family at Lahaina, and brought her up with the utmost care until she was sixteen. After this, however, incest was practised between her and the King, her brother. To say that the King was a bad man at heart would be wrong, for I have never known a more generous-hearted man, nor a more considerate, benign, or loving ruler over a confiding people, than he was over his humble kingdom. This act on the part of these important personages was unaccountable. The missionaries were startled at the failure of their prayers, apostolic teachings and spotless examples. The natives smiled or looked stolid at their sorrow and denunciations of the awful crime. The King and the royal sister were calm and indifferent, receiving the expostulations and discipline of their foreign teachers—the priests of a new and outwardly respected faith—without resentment or explanation. No issue sprang from that connection. Nahienaena afterwards married Lilihoku, a high chief of the Island of Hawaii. She died without issue, and was embalmed and entombed in the “royal mausoleum,” a very humble wooden structure, built on a little island in an artificial lake in Lahaina, not far from my residence. A thatched native house on this spot was the favorite residence of the King, above all other places in his domains. The mausoleum I have visited, by the royal permission.

The King had married Kalama, a woman of no rank, and the only child to which she gave birth soon died. The king's grief at the death of his sister was so great, that he has been known to often shut himself up with her remains for days together, with little or no food, having commanded his attendants to leave him undisturbed. This was the last of the royal line direct from the gods. Christian teachings had not uprooted the traditions of the Hawaiian elders. The sacred blood of the royal line was of more consequence to him and to his sister than the law and the prophets of another and a foreign faith. This, I have now no doubt, is the reason and the apology for the incest. What to us is a high crime, to that line of rulers was a compulsory and religious duty. It had been imposed on his ancestors by divine decree; and the high priests, from age to age, had forbidden its infraction. It became a foul crime in the presence of Christian civilization, but it takes more than ten years of apostolic culture to eradicate the traditions and pagan superstitions of twenty centuries.

The present King has been educated in the most enlightened

manner, but I know, from his personal communications to me, that he is in possession of all the traditions of his ancestors, many of which, he informed me, were known only to himself and chiefs, and which, through all generations, had never been communicated to the common people. Thus the earliest superstitions have descended through an unknown lapse of time, with an inflexibility which has been broken in its observance only by the present King. He, however, still imbued with the genius of ancient institutions, associates his sister in the reserved rights of the crown, and thereby links the remotest traditions of rude, barbarous and absolute ages with constitutional forms and the refinements of representative government.

There are two remarkable facts connected with the generation of the High Chiefs of Hawaii to which it may be interesting to allude, and which it may be appropriate here to record, inasmuch as I am not aware that either of them, any more than the one I have just stated, have before been given to the world. One of these facts concerns organic function; the other, organic structure; both, indeed, physiological, and of much importance when applying laws which influence variation of species in plants and animals to the diversities of human form. They present a foundation, indeed, for the most profound morphological inquiry that has yet occupied scientific men—an inquiry which assumes an imposing magnitude, since this hard age of reason demands the calmest and closest investigation of all physical and moral causes tending to modify structural developments through successive generations, among animals and men. Inasmuch as these facts are closely connected with the history and genealogy of the Hawaiian chiefs, they may be justly embraced among these “Notices,” and in this connection, since the customs and personal habits of the high chiefs were dictated by the priesthood (which was also hereditary), the high priest always establishing or lifting *tabus*, and seeing that the commands of the gods were obeyed by the chiefs and common people.

The first fact to which I shall allude is, that it was the opinion of the chiefs that conception was only possible immediately after menstruation. There was always a separate house for their wives, in which they were to eat apart from the men, and one especially appropriated for those afflicted with periodical illness. Within eight and forty hours after these periods, the chief cohabited with his wives. The offspring was always supposed to be legitimate from this circumstance; and as great license existed, quarrels seldom rose in consequence of domestic dishonor.

I have alluded to this curious and very delicate subject, as a pure matter of history and genealogy; and coincident with this remarkable observation and systematic habit of a rude and unlettered people, I will call attention to the scientific fact, now believed very firmly by the most eminent physiologists, that concep-

tion in the human female takes place most frequently, if not always, immediately after menstruation.

The second fact is the apparent difference of origin between the common natives of Hawaii and their chiefs. The *common natives* of the Sandwich Islands are by no means a well-formed or intelligent people. But the chiefs are always large, sometimes of commanding and enormous proportions and weight, of great intelligence and marked executive abilities. I was struck with this difference by my own observations, and had frequently heard this fact stated by the South Sea whalers who visited these Islands for recruits as early as the year 1818. At that time, and for some years afterwards, the high chiefs were numerous, and were reported to be, many of them, of enormous bulk—some of them weighing from 200 to 400 pounds. In regard to the difference in size and appearance—physical characteristics, indeed, so remarkable as to attract general attention and remark, and as great as would among inferior animals constitute varieties in natural descriptions—there can be no question. How is this difference accounted for? Did these varieties spring from the same stock? In general character they seem identical. Distinctions in physical developments and intellectual and moral qualities are so remarkable as to be almost specific. This opens a question of great importance in a physiological view—that of the influence of close breeding, by domestic intermarriage, on offspring, and its effects on successive generations, whether disastrous or otherwise.

This is not the time nor place to discuss this subject; but as Dr. Bell, of New York, in an able article in the Boston Medical and Surgical Journal of July 14th, 1859, has shown the statistics on which public opinion in these respects has been founded, to be incomplete, unsatisfactory, doubtful and unreliable, the force of his position may be greatly strengthened by an elaborate discussion of “in-and-in breeding” in the human race under any and all contingencies. Society settles the moral point in the question, and the highest refinements of civilization are founded on its conclusions and should be maintained. But so far as my own observation and study bear on the problem of defective organization in the offspring of close domestic intermarriages, I am free to say that, as a purely scientific question, I consider it far from settled. On the contrary, I am led to believe that the ancient peculiar system of *tabus* overshadowing the entire civil polity of Hawaii, extending even to the training, food, methods of eating, exercise, mental action, religious belief, and to ideas of hereditary superiority, together with the strict observance of a fundamental, procreative, functional and organic law, maintained from generation to generation, have tended to give unusual development, power, and physical and mental peculiarities to the high chiefs of that isolated group. Pride of lineage and lofty origin inspire the nervous powers of strong and intelligent men and women who are

not sensualists, with unusual vigor; and I see not why higher qualities of character and developments of form may not be transmitted from generation to generation in the human race by careful and systematic "in-and-in breeding," as well as in any other race of animals.

SMOKING IN GONORRHŒA.

BY GEORGE THOMPSON SHIPLEY, BOSTON.

[Communicated for the Boston Medical and Surgical Journal.]

A TRIVIAL question, possibly, but one which, even in my own limited practice, I have found a source of annoyance. The patient, if male, is almost certainly addicted to the use of pipe or cigar. He assents willingly to your strict prohibition of certain stimulating articles of food and of intoxicating liquors. He has, in fact, determined on so much abstinence before seeking advice. But then he asks, "May I keep on smoking? So-and-so did, and got well without trouble." What answer shall be given him? Is not the answer influenced in almost every instance by the personal habits of the medical adviser, either as a smoker or non-smoker? If facts were to show that this habit was, in actuality, deleterious in urethral inflammation, even in a trifling degree, is it not worth while to advise, not from personal preference, but in accordance with such facts? I have made careful observation on this point in several cases. I have reached a result opposed to my previous ideas, though in the daily habit of a post-prandial cigar, and sometimes two.

A. B., aged 28, weighing 180 pounds, of a plethoric habit, a large eater, and apparently in perfect health, applied to me for relief from a neglected gonorrhœa. He had been trying to "drink it off," and the result may be imagined. The head of the penis was swollen and of a dark-red hue. The discharge was profuse. He had chordee, with involuntary emission of semen at night. The urethra was tender to the touch through nearly its whole extent. It was his first attack. There was no increase of pulse, no constitutional disturbance, and but slight increase of desire to urinate. Digestion was unimpaired, appetite good, and action of bowels regular and copious.

I prescribed the "Compound Cubeb Powder" in two-drachm doses, three times daily, and ice-water injections after each urination. The patient was willing and anxious to adopt any regimen, with two exceptions. He could not leave his business for an hour, and would not give up his cigar after each meal.

He took the powders and injections for eight days. At the end of that time he came to me again. I found that he had voluntarily abandoned his cigars some four days previously, and that he thought by so doing he had hastened recovery, which seemed com-

plete. I directed him to discontinue the injections, but to use the powders in diminishing quantity for five days longer, and left smoking to his own discretion. I saw nothing more of him for a fortnight. He then met me in the street, told me he was well, but had observed a singular fact regarding smoking. He had re-commenced and abandoned the habit three times since our previous meeting, and had found with each renewal a re-appearance of the urethral discharge, almost immediately supervening on placing the cigar in his mouth. He had given up smoking, he said, for "one while, at least."

C. D. was a pale and debilitated patient, who had suffered with a mild gonorrhœa for some time, he did not know how long. It had never been painful, never inflamed the penis, never troubled him, except that it soiled his linen. He had never used stimulating liquors, but smoked once in a while. He would smoke oftener, but *noticed an increase of discharge after smoking*, and for that reason did not. Just at that time, my friend Dr. D., of S. C., had sent me a new remedy for old cases of gonorrhœa—the tincture of gelsemium. I prescribed this in twenty-drop doses, inducing slight narcotism at each dose, and under its influence the patient speedily recovered.

Thus, in two dissimilar cases smoking seems, by the patients' own statements, to have acted as an irritant to the lining membrane of the urethra. I should be pleased to learn how far observation of more experienced persons corresponds with my own.

A NEW TEST FOR DIABETES.

BY E. C. BIDWELL, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

THE only test for glucosuria which I have hitherto found satisfactory—fermentation—involves a delay which is often exceedingly annoying, and sometimes fatal to a satisfactory and seasonable diagnosis. Those founded upon the reduction of metallic oxides, besides being complicated and inconvenient for clinical use, are liable to various fallacies. A better test than any I have seen described, seemed to me a *desideratum*—one which should be delicate and conclusive, and at the same time ready and convenient. Moved by this sense of a want, to experiment for a new process, I have discovered one which seems to me to meet fully the needs of the case; one, which, if it be not pre-eminently scientific, is nevertheless facile and reliable. For the benefit of any others who may have felt the same want, I herewith communicate the result of my investigations.

Technically described, it is simply the conversion of the saccharine element of diabetic urine into *caramel* by heat. My mode is

this. Upon a clean slip of tinned iron, place one or two drops of the suspected material, and hold it over a spirit lamp: the fluid will speedily evaporate, leaving, if the process be arrested at that point, scarcely a trace upon the metallic surface. Continue the application of heat; in a few moments after the desiccation is complete, a spot of an inch or so in diameter, over which the drop had spread with the first ebullition, will gradually assume a rich reddish-brown color, with a brilliant lustre, as if coated with a film of varnish or Japan lacquer. A stronger heat produces a darker color, but the lustre continues till the heat becomes sufficiently intense to decompose the substance. This experiment has succeeded perfectly in my hands, when the urine on trial, previously known to contain glucose, was of specific gravity less than 1030, and still further reduced by the addition of three or four times as much of water. It is thus proved to be a delicate test. I suppose it to be conclusive, also, for I have never yet found any other constituent of urine, normal or abnormal, capable of producing anything at all like the same appearance under the same treatment. The nearest approach is this: some samples of urine not diabetic, when treated in this way, leave a faint, dull, yellowish stain, easily distinguished from caramel by its paler color, and the entire absence of lustre. I need scarcely add, that a solution of sugar, not diabetic, exhibits almost exactly the same reaction.

With the augmented interest attached to glucosuria, since, besides being a leading feature of a most intractable, but fortunately rare, disease, it is found symptomatically associated with several other diseases and injuries, an increased facility for its detection is almost a necessity of the profession. I trust they will find it in the simple and beautiful experiment above described.

Middlefield, Nov. 12, 1860.

SIR BENJAMIN BRODIE ON THE USE AND ABUSE OF TOBACCO.

THE opinions of this distinguished physiologist and surgeon on the keenly-debated subject of the influences, sanitary and social, of tobacco smoking, have been expressed in the following interesting letter to the *Times*:—

“*Sir*,—Having been applied to, some time since, to join in a petition to the House of Commons, that they would appoint a committee to inquire into the effects produced by the prevailing habit of tobacco smoking, I declined to do so; first, because it did not appear to me that such a committee would be very competent to discuss a question of this kind; and, secondly, because, even if they were so, I did not see that it would be possible for Parliament to follow up by any act of legislation the conclusions at which they might have arrived. Nevertheless, I am ready to admit that the subject is one of no trifling importance, and well worthy the seri-

ous consideration of any one who takes an interest in the present and future well-being of society. From these considerations it is that I now venture to address to you the following observations.

“The empyreumatic oil of tobacco is produced by distillation of that herb at a temperature above that of boiling water. One or two drops of this oil (according to the size of the animal) placed on the tongue, will kill a cat in the course of a few minutes. A certain quantity of the oil must be always circulating in the blood of an habitual smoker, and we cannot suppose that the effects of it on the system can be merely negative. Still, I am not prepared to subscribe to the opinion of those who hold that, under all circumstances, and to however moderate an extent it be practised, the smoking of tobacco is prejudicial. The first effect of it is to soothe and tranquillize the nervous system. It allays the pains of hunger, and relieves the uneasy feelings produced by mental and bodily exhaustion. To the soldier who has passed the night in the trenches before a beleaguered town, with only a distant prospect of breakfast when the morning has arrived; to the sailor, contending with the elements in a storm; to the laborer, after a hard day's work; to the traveller in an uncultivated region, with an insufficient supply of food, the use of a cigar or a tobacco pipe may be not only a grateful indulgence, but really beneficial. But the occasional use of it under such circumstances is a very different matter from the habit of constant smoking which prevails in certain classes of society at the present day. The effects of this habit are, indeed, various, the difference depending on difference of constitution, and difference in the mode of life otherwise. But, from the best observations which I have been able to make on the subject, I am led to believe that there are very few who do not suffer harm from it, to a greater or less extent. The earliest symptoms are manifested in the derangement of the nervous system. A large proportion of habitual smokers are rendered lazy and listless, indisposed to bodily and incapable of much mental exertion. Others suffer from depression of the spirits, amounting to hypochondriasis, which smoking relieves for a time, though it aggravates the evil afterwards. Occasionally there is a general nervous excitability, which, though very much less in degree, partakes of the nature of the *delirium tremens* of drunkards. I have known many individuals to suffer from severe nervous pains, sometimes in one, sometimes in another part of the body. Almost the worst case of neuralgia that ever came under my observation, was that of a gentleman who consulted the late Dr. Bright and myself. The pains were universal, and never absent; but during the night they were especially intense, so as almost wholly to prevent sleep. Neither the patient himself nor his medical attendant had any doubts that the disease was to be attributed to his former habit of smoking, on the discontinuance of which he slowly and gradually recovered. An eminent surgeon, who has a great experience in

ophthalmic diseases, believes that, in some instances, he has been able to trace blindness from amaurosis to excess in tobacco smoking; the connection of the two being pretty well established in one case by the fact that, on the practice being left off, the sight of the patient was gradually restored. It would be easy for me to refer to other symptoms indicating the deficient power of the nervous system to which smokers are liable: but it is unnecessary for me to do so; and, indeed, there are some which I would rather leave them to imagine for themselves than undertake the description of them myself in writing.

“But the ill effects of tobacco are not confined to the nervous system. In many instances there is a loss of the healthy appetite for food, the imperfect state of the digestion being soon rendered manifest by the loss of flesh and the sallow countenance. It is difficult to say what other diseases may not follow the imperfect assimilation of food continued during a long period of time. So many causes are in operation in the human body which may tend, in a greater or less degree, to the production of organic changes in it, that it is only in some instances we can venture to pronounce as to the precise manner in which a disease that proves mortal has originated. From cases, however, that have fallen under my own observation, and from a consideration of all the circumstances, I cannot entertain a doubt that, if we could obtain accurate statistics on the subject, we should find that the value of life in inveterate smokers is considerably below the average. Nor is this opinion in any degree contradicted by the fact that there are individuals who, in spite of the inhalation of tobacco smoke, live to be old, and without any material derangement of the health; analogous exceptions to the general rule being met with in the cases of those who have indulged too freely in the use of spirituous and fermented liquors. In the early part of the present century, tobacco smoking was almost wholly confined to what are commonly called the lower grades of society. It was only every now and then that any one who wished to be considered as a gentleman was addicted to it. But since the war on the Spanish Peninsula, and the consequent substitution of the cigar for the tobacco-pipe, the case has been entirely altered. The greatest smokers at the present time are to be found, not among those who live by their bodily labor, but among those who are more advantageously situated, who have better opportunities of education, and of whom we have a right to expect that they should constitute the most intelligent and thoughtful members of the community. Nor is the practice confined to grown-up men. Boys, even at the best schools, get the habit of smoking, because they think it manly and fashionable to do so; not unfrequently because they have the example set them by their tutors, and partly because there is no friendly voice to warn them as to the special ill consequences to which it may

give rise where the process of growth is not yet completed, and the organs are not yet fully developed.

“The foregoing observations relate to the habit of smoking as it exists amongst us at the present time. But a still graver question remains to be considered. What will be the result if this habit be continued by future generations? It is but too true that the sins of the fathers are visited upon their children and their children’s children. We may here take warning from the fate of the Red Indians of America. An intelligent American physician gives the following explanation of the gradual extinction of this remarkable people:—One generation of them became addicted to the use of the fire-water. They have a degenerate and comparatively imbecile progeny, who indulge in the same vicious habit with their parents. Their progeny is still more degenerate, and after a very few generations the race ceases altogether. We may also take warning from the history of another nation, who some few centuries ago, while following the banners of Solyman the Magnificent, were the terror of Christendom, but who, since then, having become more addicted to tobacco-smoking than any of the European nations, are now the lazy and lethargic Turks, held in contempt by all civilized communities. In thus placing together the consequences of intemperance in the use of alcohol and that in the use of tobacco, I should be sorry to be misunderstood as regarding these two kinds of intemperance to be in an equal degree pernicious and degrading. The inveterate tobacco-smoker may be stupid and lazy, and the habit to which he is addicted may gradually tend to shorten his life and deteriorate his offspring, but the dram-drinker is quarrelsome, mischievous, and often criminal. It is under the influence of gin that the burglar and murderer become fitted for the task they have undertaken. The best thing that can be said of dram-drinking is, that it induces disease, which carries the poor wretch prematurely to the grave, and rids the world of the nuisance. But, unfortunately, in this, as in many other cases, what is wanting in quality is made up in quantity. There are checks on one of these evil habits which there are not on the other. The dram-drinker, or, to use a more general term, the drunkard, is held to be a noxious animal. He is an outcast from all decent society, while there is no such exclusion for the most assiduous smoker. The comparison of the effects of tobacco with those of alcohol leads to the consideration of a much wider question than that with which I set out. In all ages of which we have any record, mankind have been in the habit of resorting to the use of certain vegetable productions, not as contributing to nourishment, but on account of their having some peculiar influence as stimulants or sedatives (or in some other way) on the nervous system. Tobacco, alcohol, the Indian hemp, the kava of the South Sea Islanders, the Paraguay tea, coffee, and even

tea, belong to this category. A disposition so universal may almost be regarded as an instinct, and there is sufficient reason to believe that, within certain limits, the indulgence of the instinct is useful. But we must not abuse our instincts. This is one of the most important rules which man, as a responsible being, both for his own sake and that of others, is bound to observe. Even such moderate agents as tea and coffee, taken in excess, are prejudicial. How much more so are tobacco and alcohol, tending, as they do, not only to the degradation of the individual, but to that of future generations of our species? If tobacco smokers would limit themselves to the occasional indulgence of their appetite, they would do little harm to themselves or others; but there is always danger that a sensual habit once begun may be carried to excess, and that danger is never so great as in the case of those who are not compelled by the necessities of their situation to be actively employed. For such persons the prudent course is to abstain from smoking altogether. Trusting that you and your readers will excuse me for having occupied so large a space in your columns,—I am, sir, your obedient servant,

B. C. BRODIE."

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

Oct. 8th.—*Cancer of the Foot in a Child.* Dr. MORLAND exhibited the patient, and also three colored drawings of the part affected, which were made three months since, and then accurately represented the disease.*

The patient is a boy, six years old, of Irish parentage, always rather delicate, with marked pigeon-chest, yet, before the accident upon which the present disease followed, active, lively, and functionally well. He was first seen by Dr. M. at the Central Office of the Dispensary, and had been previously attended by Dr. John W. Sawyer, one of the Visiting Physicians.

About a year ago, he received a severe kick, from a schoolmate with whom he was playing, upon the inside of the right foot. He suffered a good deal of pain at the time, and was disabled for a day or two, but seemingly had then recovered from the effects of the blow. After a few weeks, however, he began to have pain in the injured part, and the latter began gradually to enlarge. The pain became sharp and lancinating, shooting up the leg; and he was often kept awake by it at night. He grew very slowly, and his appetite was capricious; yet he did not lose flesh, nor has his digestion been disturbed. The swelling of the part has slowly, but steadily increased, and now involves most of the inner aspect, and sole, of the foot, and has sent off a protuberance towards the rear, just above the os calcis. The veins are very much dilated, and, in several portions of the tumor, strong

* These were executed by Mr. R. D. Wilkie, 20 Kneeland Street.

pulsation is felt, as if from enlarged arteries. The tumor has, from the first, presented every appearance of malignant disease. Dr. M. supposes it to be of an encephaloid nature, and that all the tissues are involved—bone, periosteum, and soft parts.

When first seen, Dr. M. advised immediate amputation; and has urged the mother frequently, since, to allow him to operate. She has, until now, declined, and has taken the child to several practitioners, both regular and irregular—besides having shown him twice at the Massachusetts General Hospital, where he would have been received, had she consented to submit him to treatment. Almost everything has been applied to the tumor, from beet-poultices and chickweed, to mesmeric passes and “spiritual influence”—the disease in the meantime constantly progressing. Lately, pain and soreness have increased, and the growth of the protuberances is more rapid. The mother is now willing that the operation should be performed, and Dr. M. proposes to amputate so soon as the patient experiences some effect from a tonic course to which he has been subjected.

The delay of the operation has doubtless greatly lessened the chances of recovery; but its abandonment seems unjustifiable.



The above engraving shows the foot as it appeared when first seen by Dr. M., some three months since.

SEPT. 10th.—*Ovarian Dropsy in a Girl aged fifteen Years.* Dr. JACKSON reported the case, which was in the Hospital, under his care, for a few days. The abdomen measured thirty-seven inches in cir-

cumference, had the feeling which would be given by a thick fluid, was perfectly flat on percussion, except on the sides, and as she lay on her back : and was, in every way, an unequivocal case in regard to diagnosis, a vaginal examination having been made in reference to the possibility of pregnancy. Her general appearance was that of perfect health, and she reported accordingly. Since August, 1859, however, she had been subject to dysuria ; and since November the catamenia had been too free, being continuous at one time, during the winter, for about six weeks. About the first of February, pain came on in the region of the right ovary, and lasted about four weeks ; and soon afterwards she had, for a time, some pain in the region of the left ovary. It was soon after the first pain that the abdomen began to swell, and it was not long before it was as large as at the time of her entrance.

Dr. J. reported the case on account of the remarkable youth of the patient, having never before met with, nor heard of the occurrence of the disease in so young a person.

OCT. 22d.—*Cancer of the Rectum and Liver ; Disease of the Kidney.* Dr. JACKSON reported the case, an account of which he received from a member of the Society.

The specimen was taken from a middle-aged woman, who, in the autumn of 1859, began to complain of oppression after meals, and a little nausea. The bowels had been for a long time constipated. During the months of January and February, she was able to take a little more food, though less than when well, and lost both flesh and strength. In the latter part of March, fulness of the abdomen was noticed, partly owing to flatulence, but there was at the same time hardness and a want of elasticity about the epigastrium. She had several attacks of severe pain, and the fulness afterwards became more marked. On one occasion, she passed some bloody mucus. About ten days before her death, castor oil was given, and afterwards croton oil, without producing the desired effect. She soon, however, began to vomit, and there was much pain and oppression, but no action of the bowels. The pulse gradually rose to 140, and continued so until her death. Her mother died of cancer of the uterus, and her grandmother of the same disease in the breast.

Autopsy.—The skin of the face, at the time of the examination, was yellow, but no discoloration was noticed before death. The emaciation was marked ; the abdomen much distended.

The walls of the right ventricle of the heart were very thin.

The liver was much enlarged, and weighed nearly nine pounds. In all parts of the substance, and projecting far above the surface, were rounded masses of various sizes, the largest being between two and three inches in diameter. In the centre of many of these were well-marked depressions. Two of them were attached to the adjacent parts by strong bands. They were well defined, quite firm, and presented on their cut surface a radiated arrangement. Some portions were highly vascular, others yellow—the latter color being caused by fatty degeneration. Several of the growths had well-marked cavities in the centre. The intervening hepatic substance was of a yellow color. The gall-bladder was filled with dark bile.

Much distension of the intestines, but this appeared to be caused, in part at least, by the pressure of the liver. The arch of the colon contained much soft fecal matter, but the size rather diminished to-

wards the sigmoid flexure. At the junction of the latter and the rectum, the canal was closely constricted by a circular growth, which involved from one to two inches of the wall, the thickness of which was increased to a quarter of an inch. The mucous surface was red, but apparently smooth. The submucous cellular coat was thickened, firm, and of a whitish color. Muscular coat thickened and striated for the most part, but in the centre the coats were all blended in the morbid tissue above described. On microscopic examination of the diseased portion of intestine, there were seen some large but indistinct nuclei, like those belonging to malignant formations, but the fatty degeneration was so extensive as to make it impossible to pronounce with accuracy upon the exact character of the elements.

In a small mass in the liver, which appeared to be recent, the nuclei were as small as blood globules, and contained small nucleoli. The cells were also small, fusiform, and contained the same small nucleoli. In one of the large masses there was much fibroid tissue and fat. A few nuclei were larger than those above described, but the appearances were very unsatisfactory.

The kidneys were of a yellowish color, coarse and loose. A microscopic examination showed the tubuli to be crowded with minute fat globules.

Other organs not remarkable.

OCT. 22d.—*Acute Dysentery; Relief from a Saline Cathartic.* Dr. JACKSON reported the case, which had recently been under his care at the Hospital. The patient, a robust Irishwoman, aged 35 years, entered on Friday, Oct. 5th. On the previous Saturday she ate cucumber; and on Sunday had vomiting, purging and abdominal pain, which had continued. The dejections were extremely frequent, mucous and bloody, very small and with tenesmus. Tenderness, but no pain in abdomen, except with the dejections. On Tuesday she was rather better, but the disease increased again after a walk on Wednesday, and still more after eating a potato. On Wednesday and Thursday she had chills and heat, but not before. Anorexia from the first. She was obliged to keep about until the time of entrance into the Hospital, when she took to her bed. Her countenance, when seen, was quite easy; vomiting had ceased, but the other local symptoms continued as above, the dejections occurring two or three times every hour. She was ordered six drachms of Epsom salts, an enema of thirty drops of laudanum, a sinapism and fomentations to the abdomen, and to keep in bed.

The report subsequently was very much as follows:—

6th.—Three dejections, free, and without much pain, within less than an hour after the salts. Then had enema, and within four hours three dejections, with less pain. Then a second enema, and only one dejection since. Sinapism and fomentations not required.

7th.—Four dejections, with little pain.

8th.—Five dejections previous to 6, A.M., as before. That is, since the cathartic they have been liquid, and without mucus, blood or tenesmus; there was diarrhoea, but not dysentery. From 6 to 10, A.M., she had had eight or nine dysenteric dejections, and with the last a little blood.

9th.—Four dejections between noon and 3, P.M., with considerable pain and tenesmus, but not small nor mucous. Abdomen less sore, and patient feels generally better.

11th.—Up and dressed.

12th.—No dejection since 9th. Took ol. ricini, ℥ss., which she vomited; and afterwards fluid extract of senna, ℥ss.

13th.—Four or five dejections; the first two costive, and none at all dysenteric.

16th.—Discharged, well.

The only opiates used were the two enemata above referred to. Dr. Jackson referred to another case of acute dysentery that he treated many years ago with an ounce of Epsom salts; and with such immediate and complete relief that nothing further was required. In the case above reported, there was great relief from the cathartic, and before the enemata were given; and he believed that the disease might have subsided easily enough if no opiate had been used. There was no reason whatever to suppose that any faecal accumulation existed in the above case; and the therapeutic agency of the cathartic is an interesting question. Dr. J. was inclined to think favorably of the saline cathartics, as compared with others; and he did not doubt, from what he had observed of the progress of dysentery in other cases, that in the one above reported it would have been very much retarded if he had depended upon opiates alone.

OCT. 22d.—*Chronic Arthritis of the Elbow-joint.* Dr. JACKSON showed the bones which he had received from Mr. J. B. Treadwell, one of the medical class, and which were from the dissecting-room. The growth of new bone about the articular surface of the humerus was strongly marked, and the olecranon fossa was nearly filled up by it. In connection with this specimen Dr. J. showed a piece of bone which had been exhibited once before to the Society, and which was supposed to have dropped out from the cavity of the joint when it was opened, as if it had been lying there free. This bone, which Dr. J. had received from Mr. J. G. Blake, one of the house-surgeons of the Massachusetts General Hospital, was nearly or quite equal to half an inch in diameter, and as to structure and color had all the appearance of a new growth. The articular surface of the humerus towards the outer condyle was somewhat irregular and depressed to the extent of about four lines; but it did not appear at all grooved, nor was there any corresponding appearance upon the head of the radius. The probability is, that the bone in question was formed in the synovial membrane, as such growths are found there occasionally in chronic arthritis, and the following case is a fine illustration of the fact:

The specimen, in this second case, was shown by Dr. R. M. HODGES, who obtained it in the dissecting-room. It was the elbow-joint, again, that was affected; and, besides the new bone that was thrown out about the articular surface, there were seen four small, bony growths in the synovial membrane itself, which, with the ligaments about the joint, had been preserved. In structure these growths seemed to perfectly resemble the one shown by Dr. J.

The other humerus in Mr. Treadwell's case was similarly affected.

THE medical career is so admirable when divested of all cupidity, it brings so much into play the better feelings of our nature, that it often ends by being a virtue after commencing as a profession.—*Lamartine.*

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, NOVEMBER 22, 1860.

WE publish, this week, an interesting letter from the pen of Sir Benjamin Brodie, which recently appeared in the *London Times*, on the use and abuse of tobacco. The subject, it is true, is somewhat threadbare from the repeated handlings that it has received, and we do not believe there will be one smoker the less for this last counterblast of Sir Benjamin, but our readers will be glad to learn the views of one whose rank in the profession entitles his opinion to respect and confidence.

From the days of King James to the present time, there seem to have been periodical attempts, which in some instances have received the sanction of the State, to put an effectual check upon a practice believed to be alike baneful to soul and body. But, notwithstanding these repeated endeavors on the part of statesmen and philanthropists, the weed has grown rapidly in favor, and is, at present, used to an extent almost incredible to those unacquainted with the facts. No less than six millions of acres of land are at present employed for its cultivation; the annual production in the United States alone is two hundred millions of pounds, and it is said that it is in common use among no less than four fifths of the population of the world.

Now this universality in the consumption of tobacco may be regarded as an argument, and a pretty powerful one, that, harmful as it may prove in certain instances, it serves, on the whole, some wise and useful end. That much positive harm may and often does ensue upon its use, particularly during the period of youth, there can be no question, interfering as it must, by its directly sedative action upon the nervous system, with the natural growth and development of the body, and inducing a nervous excitability which may end in hypochondriasis and its attendant evils. So in those who possess any peculiar constitutional susceptibility to its influence, much harm often arises, even when moderately used. But it would be obviously unfair to base a law upon such exceptional cases. A wider experience has shown, on the contrary, that where used in moderation and under circumstances not obviously contra-indicating its employment, it is capable of proving a real blessing. We would not be understood as advocating the promiscuous use of tobacco, for in a state of sound mental and bodily health it is clearly not needed, and hence may do injury; notwithstanding the remark of Pereira, confirmed by the observations of Christison and others, that he knows of no well-ascertained ill effects resulting from its habitual employment. But it may perhaps be said that few in this age can be considered as in a state of sound mental health. The extraordinary development of mental activity that has characterized the European races for two hundred years past, has naturally been accompanied and followed by a condition of the nervous system, which may demand that composing influence which tobacco alone is capable of affording.

Nor do we see any evidence of that degeneracy which Sir Benjamin is inclined to regard as an almost necessary consequence of the use

of tobacco. What has been termed by a recent writer in the *Nashville Medical Journal* "the tobacco period," comprises the three most brilliant centuries in the world's history. "Never before," truly says he, "were the hands of man so busy, never were man's achievements so brilliant." It is indeed unfortunate for those arrayed against its use that the era of Shakspeare, Milton, Bacon and Newton; of the Lutheran Reformation, French Revolution and American Republic; of the steam engine and electric telegraph, should have coincided with that of tobacco. And certainly the extraordinary activity which may be said to characterize our own age furnishes little evidence of its baneful effect on the race at large.

We did not intend to write a dissertation on tobacco, but we have been led to these remarks by the importance that attaches to this subject; a subject upon which there will always be a difference of opinion, although it will have little influence either in checking or promoting a habit that may almost be said to have become but the expression of a natural instinct.

There is a local effect of tobacco, when smoked, which we have not seen mentioned, and which, in a therapeutical aspect, may be of considerable importance; we refer to its action in preventing that peculiar condition of the throat, which, if neglected, is liable to terminate in follicular inflammation, or what is popularly known as clergyman's sore throat. It has been said that few if any instances of this affection can be found to exist in those in the habit of smoking, and we know of one or two instances where it yielded at once to the potent influence of tobacco. It probably acts by allaying commencing irritation, which, if allowed to increase, would end in inflammation; and perhaps by counteracting any spasmodic condition of the surrounding muscles—a very natural source of trouble in this distressing disease.

MASSACHUSETTS MEDICAL BENEVOLENT SOCIETY.—The adjourned Annual Meeting of the Massachusetts Medical Benevolent Society was held at the house of Dr. John Homans, Temple Place, on Monday afternoon, 19th inst.—the President, Dr. HAYWARD, in the chair.

The Secretary's records of the last meeting were read.

Dr. J. H. Lucas, of Edgartown, was elected a member of the Society.

The Treasurer's accounts were read, and referred to an auditing committee, who, at a later period of the meeting, reported having found them correct, and they were accepted. The amount of money in the Treasurer's hands, belonging to the Society, is \$1,831.32.

The committee for nominating officers for the ensuing year having made their report, the following gentlemen were unanimously elected: *President*, Dr. George Hayward. *Vice President*, Dr. Augustus A. Gould. *Secretary*, Dr. J. Nelson Borland. *Treasurer*, Dr. Francis Minot. *Trustees*, Drs. John Flint, James M. Phipps, John B. Alley, George H. Lyman, W. W. Wellington, William J. Dale, John Homans, Anson Hooker, George Hayward, Jr.

It was *voted*, to submit to the Council for their approval the following substitute for the Second By-Law: "Any Fellow of the Massachusetts Medical Society, in good standing, may become a member of this Society upon application to the Treasurer, signing the obligation and paying the fee, he having been approved by the Council."

And also in the Sixth By-Law, relative to the number of members constituting a quorum (it having been twenty), it was *voted*, that the clause should read, Ten members shall constitute a quorum.

After an expression of opinion on the point by several members, it was *voted*, that the Society have an entertainment this year, and that the matter be left to the Council, with full powers.

The members of the Society may feel pleased with its generally thriving condition, and it is expected that simplifying the mode of admission will add considerably to the number of members. It is hoped that a general interest will be felt in its welfare by the members of the profession throughout the State.

DARTMOUTH MEDICAL COLLEGE.—We see announced a course of instruction in anatomy and physiology, during the winter months, at the above institution. This instruction is to consist of daily recitations and demonstrations, and students are allowed unusual opportunities and facilities for dissection. Daily recitations in the various departments of medical study are also had throughout the year. We are glad to see this evidence of life and health in this ancient and respectable Institution, and students may rest assured that no pains will be spared, on the part of those who have charge of the instruction, to render every facility that can be afforded towards the attainment of a sound and practical medical education.

DR. HOLMES'S ADDRESS.—A very able and well-written review of Dr. Holmes's address before the Massachusetts Medical Society, appears in the November number of the *Charleston Medical Journal and Review*.

THE UNIVERSITY OF MARYLAND.—This Faculty commenced their course of lectures on Monday, the 15th of October, with a general introductory by Dr. Edward Warren, Professor of Materia Medica. In his exordium, he paid a becoming tribute to the memory of those three gentlemen—Professors Joseph Roby, Charles Frick and Dr. B. B. Smith—who have died since the closing of the last course of lectures.—*Maryland and Virginia Medical Journal*.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, NOVEMBER 17th, 1860.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	26	45	71
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	33.4	35.1	68.5
Average corrected to increased population, . . . . .	..	..	76.5
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infan.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
8	0	9	4	0	0	0	2

BOOKS RECEIVED.—Statistical Report on the Sickness and Mortality in the Army of the United States, for a period of five years, from January, 1855, to January, 1860.

MARRIED.—In South Danvers, Nov. 1st, Dr. D. C. Perkins to Miss Hatty C. Proctor, both of S. Danvers.

DIED.—At Hopkinton, Nov. 18th, Jesse Merrill, M.D., aged 66 years.

Deaths in Boston for the week ending Saturday noon, November 17th, 71. Males, 26—Females, 45.—Accident, 2—apoplexy, 1—anemia, 1—disease of the bowels, 1—inflammation of the bowels, 2—congestion of the brain, 1—inflammation of the brain, 2—bronchitis, 3—cancer, 2—consumption, 8—convulsions, 1—croup, 3—puerperal disease, 3—dropsy, 3—dropsy of the brain, 4—epilepsy, 1—scarlet fever, 9—typhoid fever, 2—gastritis, 1—hemoptysis, 1—intemperance, 1—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 4—marasmus, 2—old age, 3—pleurisy, 2—premature birth, 2—teething, 1—unknown, 2.

Under 5 years, 31—between 5 and 20 years, 4—between 20 and 40 years, 18—between 40 and 60 years, 8—above 60 years, 10. Born in the United States, 47—Ireland, 19—other places, 5.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXIII. THURSDAY, NOVEMBER 29, 1860.

No. 18.

ERYTHEMA PAPULATUM ET TUBERCULATUM.

[Read before the Boston Society for Medical Improvement, Oct. 8th, 1860, and communicated for the Boston Medical and Surgical Journal.]

BY SILAS DURKEE, M.D., BOSTON.

[WITH FOUR DRAWINGS OF THE CASE DEPOSITED IN THE SOCIETY'S ROOMS.]

THE patient, Mrs. J. B. Peck, of Connecticut, was presented for examination. Her age is 54 years. She was born of healthy parents, both of whom are now living at the age of more than 80 years; is a tall, stout, well-built woman, and at the age of 45 weighed 160 pounds. She is intelligent and of good character. She has never been pregnant, has never had any uterine disease, and the menstrual function ceased at the usual period. She reports that ten years ago, and without any appreciable cause, a bright scarlet-colored eruption appeared upon the face, the trunk of the body and the extremities, producing but little inconvenience of any kind, excepting a moderate degree of heat and itching, until the expiration of about ten months, when a succession of small bunches or lumps appeared and soon terminated in "sores," which (she states) her physicians compared to the pustules or sores of smallpox.* Each of these "sores" required, as near as the patient can recollect, from twelve to fifteen days for their entire development and disappearance. They yielded but little discharge of any kind, and ended in a dark incrustation or scab. They were not painful at any time, like boils, nor did they in any wise incommode the patient so as to deprive her of sleep or essentially to diminish her ability to attend to her domestic duties as usual; although, during this period of one year, she had a somewhat impaired appetite, and lost several pounds of flesh. Only a few pustules (if this word is allowable, which I somewhat doubt) formed

* Burgess, in his *Treatise on Eruptions of the Face, Head and Hands*, relates, at page 23, a case of erythema papulatum simulating smallpox.

upon the face or body; but on the lower limbs they were numerous. On the right leg were sixty at one time. The eruption continued to present this *quasi* pustular character, or softening of the papules, for about two months, after which the patient remained in fair health nearly five years.

In 1856, the present disease began to show itself around the knee-joints, in the form of small, hard, red, solitary papules, slightly raised above the adjacent integument, and of a round or oval figure—mostly of the latter. In a few weeks they were developed on the chin and the front part of the neck; and in seven or eight months various portions of all the extremities were more or less involved in the eruption, which, from the account given by the patient, appears to have been *erythema papulatum*. The complaint has undergone repeated alternations of improvement and relapse from time to time; but for the last twelve months it has been gradually extending itself, without any intervals of amendment; and now the health of the patient is much impaired. Although she has a good appetite almost uniformly, yet her weight has diminished to 139 pounds; the pulse is 100 per minute; the tongue clear; she complains of a constant feeling of lassitude and debility; her sleep has of late been more or less disturbed from cutaneous irritation, although she suffers no absolute pain.

In examining the diseased skin, we will commence with that portion on which the eruption is in its incipient state, and then proceed to examine other districts, where it has existed for several months or years. On the lower part of the abdomen of the left side, and on the upper portion of the corresponding thigh, there are twelve or fifteen bright red spots of an oval shape, slightly but distinctly raised above the surrounding skin, and varying from one to two lines in diameter. They are hard to the touch; and, on being gently pressed, the color disappears and returns immediately on removing the finger. These papules were developed only two or three days ago. In this vicinity, also, are several dull-red blotches, some circular, and others oval-shaped, and varying in size from the fourth to half an inch in diameter; nearly as soft and pliable to the touch as the healthy surface. These blotches were preceded by papules of the same character as those just spoken of. So states the patient.

The next most recent development of the malady is upon the left chest. On this region it has existed three months, and occupies several square inches. It has the axilla for its outward border in part, but it is quite irregular in its outlines. The surface here is of a dark livid color. There is considerable exfoliation of the cuticle from time to time. The first abnormal condition on this district consisted also of numerous papules, which remained but a few days, and then the skin gradually assumed the appearances now present. It is much thickened and somewhat uneven. The integument covering the superior and outer portion of the

right scapula has a similar aspect to that of the left chest. The diseased patch is well defined, and is raised above the healthy surface, as in psoriasis, to which affection it bears considerable resemblance. There is occasionally an exfoliation of the cuticle, but it is less furfuraceous than in psoriasis. The epiderma is detached, and falls off in shreds or flakes, produced by the friction of the clothing, which keeps the part somewhat raw and tender at several points. The eruption upon the part we are now considering took place more than three years ago. It soon passed into, and has ever since maintained the character which it exhibits to-day, with no essential variation. No tubercles have ever formed in this locality.

The next form of the disease which I shall attempt to describe consists of numerous tubercles (or *tubers*, as they are appropriately termed by Prof. Wilson in the last edition of his work on "Diseases of the Skin," London, 1857, page 92*). These tubers range from one line to more than one inch in diameter at the base, and are developed upon all the extremities, without any regularity as to their localization on corresponding portions of surface. The largest specimens are found on the front of the right knee. A few of them are solitary, and to a casual observer might suggest a slight resemblance to the immense thick crusts sometimes seen in rupia. In fact, one or two medical students gave expression to this thought. Some of the tubercles are quite hard and unyielding to the touch; others soft and elastic. Some are considerably flattened; others are very prominent, and rise more than half an inch above the skin. Nearly all, wherever situated, are more or less movable, thus showing that the subcutaneous cellular tissue has not participated in the morbid action. When the patient has been exercising, the diseased surface is of a much more brilliant red than at other times. Most of the time it has a deep livid or purplish color. There is no pain in any of the tubers; but the patient has for the last few weeks been disturbed, especially at night, by an itching and burning sensation in the affected parts.

One tubercle, which came upon the outer aspect of the right fore-arm, near the elbow, some eighteen or twenty months ago, has disappeared, leaving the integument much thickened and livid, and within a few days a small new tubercle has begun to show itself on the border of the cicatrix left by its predecessor. Patient reports that during the last few months some of the biggest tubercles have flattened down and diminished in size, and subsequently have regained nearly their maximum growth. The most remarkable excrescences to be seen at this time are situated about the

* Wilson says that the tubers vary in size "between a four-penny-piece and a shilling." Willis, in his "Illustrations of Diseases of the Skin," states that the "size is that of a half-penny, a penny, or a crown piece." He has an excellent drawing representing the disease in its earliest stages.

knee-joints, including the left popliteal space. In the right axillary region is a large group, each specimen being well-defined, distinct and projecting, and of the size of a small thimble at the base; likewise at the bend of the corresponding elbow is a cluster, covering a surface equal to a silver half dollar—the central tuber being as large as a common walnut, and having several smaller ones springing up around it.

Nearly the entire surface of the right thigh is covered with the eruption, which presents a very remarkable appearance, consisting, as it does, of tubers, large and small, some crowded together in groups, or solitary—papules interspersed here and there—the skin hypertrophied, boggy, rough, and coarse, of a dingy red or purplish hue, shaded with a faint yellowish green tint, and the cuticle partially removed in some spots; all which would lead to the supposition that much physical suffering must be the consequence. Yet such is not the fact. Even locomotion is not interfered with to any great extent. The patient is annoyed by a pretty constant pruritus, as in urticaria, but otherwise she experiences but very little local inconvenience. The complaint has made greater progress, and shows more diversified features on this limb than elsewhere, although all the extremities are seriously affected, as are likewise various portions of the body. Occasionally there is moderate swelling (not œdematous) of the legs. This continues for a few days, and then subsides.

Oct. 8th.—During the last fortnight, the cuticle has shown a tendency to exfoliate from the summit of many of the tubercles on the thighs and about the knees; and more or less serous exudation has escaped from the denuded surfaces, as in acute eczema. The tubercles thus bereft of their natural covering, are now tender to the touch, and quite painful. The patient finds it inconvenient to walk any distance, and has in all respects failed since she came to the city. She desires to return to her friends before she becomes more feeble. She is much depressed in spirits, and fears she shall not live but a few weeks.

November 3d.—Under this date the patient writes me as follows:—"When I had been home a week, my right limb began to swell from my hip to my toes. The swelling lasted about eight days, and then began to go down. Since then it has been painful, and makes me lame to walk. The appearance of the sores is about the same as when I left Boston. They still continue to discharge a great deal of matter, and are more sensitive than they have been for a year before. The bunch on my right elbow is enlarged again. My appetite still continues good. J. B. PECK."

REMARKS.—I have seen eleven cases of *E. papulatum*. In one, a young merchant of this city, the eruption continued three weeks and then vanished. In all the other instances the peculiar morbid diathesis persisted for many months. And in four instances the

papules very gradually acquired the size and other attributes of *E. tuberculatum*. I had all desirable opportunities for observing the various and extraordinary phenomena that manifested themselves in the progress of these four cases. There was great uniformity in them; as much so as we find in the behavior of different cases of eczema, psoriasis, &c. I will not ask for time and space to describe all these phenomena, but will mention only the following:—In each of the four cases to which I have just referred, there was an eruption of *E. papulatum*, which lasted for several months and then disappeared; and the individuals enjoyed usual health for a period varying from eighteen months to three and five years. In each there was a second invasion of the disorder, which ultimately passed into the more grave tubercular form, and in three instances terminated in death. The final result of the case exhibited to the Society to-night remains, of course, to be seen. The prognosis, however, is altogether unfavorable.

I am not ignorant that a majority of writers who have anything to say upon the subject of erythema, tell us that it is not a dangerous or very serious affair in any of its varieties. Nevertheless, there are six fatal cases reported, besides those to which I have alluded in the preceding communication, and no amount of negations can impair the force of these cases. They are derived from different sources, and would seem to be invested with an authority or evidence which it would be unreasonable to question. It so seems to me, at least.

Willan, speaking of erythema tuberculatum, says, "I have seen but three cases of this latter disease, all of which terminated fatally." (London edition, 1808, page 484.) Mr. Elliotson, of London, relates a fatal case of erythema that occurred in his practice. Professor Wilson records one, and one occurred in St. George's Hospital, London, in 1855. Vide *British and Foreign Medico-Chirurgical Review*, October, 1856, page 497.

Whoever will turn to "Elliotson's Principles and Practice of Medicine," page 342, will find that he regards *E. tuberculatum* as a fatal malady; and that, in what I have offered, either now or hitherto,* I have assumed nothing.

In connection with this communication, I desire to submit the subjoined note from Dr. C. Gordon, who has for many years devoted special attention to the study and treatment of cutaneous diseases, and whose ability in this department is very generally acknowledged.

"HANCOCK AVENUE, NOV. 13, 1860.

"DEAR DR.,—I am greatly obliged to you for the opportunity you lately afforded me to see the case of *Erythema Tuberculatum* in the person of Mrs. Peck.

* I refer to a case of *E. tuberculatum et oedematosum* reported by me to the Society, and published in the *Boston Medical and Surgical Journal* for April 10, 1856; and in the *Virginia Medical Journal* for September, 1856, with two lithographic drawings.

"I have had occasion to observe very few cases of this remarkable form of cutaneous disease, in which, of late, you have been so much interested, and I never saw a case so well marked as the one above alluded to.

"The degree of *tubercular* or *tuberous* development must depend upon some peculiar constitutional element or disturbance, not understood in these cases; and, therefore, I am not surprised that some observers have doubted whether the case in question is really of the form of cutaneous disease you decided it to be. It is my opinion, however, that your diagnosis is correct, and I am happy to give my testimony in its confirmation.

Dr. Durkee.

Very truly,

C. GORDON."

CASE OF LACERATION OF THE VAGINA AT ITS JUNCTION WITH THE UTERUS.

By WM. J. BURGE, M.D., TAUNTON, MASS.

[Communicated for the Boston Medical and Surgical Journal.]

ON the morning of the 8th inst., I was summoned to the bed-side of Mrs. K., æt. 34, who had been delivered on the evening previous of a stillborn male infant, while under the care of a "*Physio-pathic Doctor*."

I found the woman lying upon her back, with her lower extremities partially drawn up, and in a condition which the medical reader will best understand from the following symptoms which were carefully noted at the time—viz.: pulse 132 and feeble. Respiration 33. Skin hot and dry. Tongue very dry and harsh. Abdomen much swollen and tympanitic. Countenance rather anxious. I immediately took the friends aside and informed them that in my opinion the case was one of extreme peril, and advised a consultation. They accordingly decided on calling Dr. Joseph Murphy, and, in the course of half an hour, that gentleman saw the case with me. He at once corroborated my opinion with regard to the danger of the patient. The grave symptoms above enumerated had supervened so speedily after delivery as to render the exact diagnosis somewhat obscure, although we were led to suspect rupture of the uterus.

The history of the case, as given by the husband and by the women in attendance, was substantially as follows:—

"The woman had been remarkably healthy up to the date of this confinement, and had given birth to three healthy children—two of whom are living. Previous labors natural and easy. Labor commenced at about noon on the previous day, and everything went on well until between eight and nine in the evening, when the 'Doctor' sent out for some medicine, of which he administered two teaspoonfuls, with a short interval, soon after which, the pains ceased and the 'Doctor' took away the child by force," but with-

out using instruments. The women gave it as their opinion that "the medicine cooled off the labor." The prescription proved to be Tilden's fluid extract of *secale cornutum*.

The treatment which Dr. Murphy and I agreed upon was as follows:—constant warm applications over the abdomen, perfect rest, attention to the bladder, anodynes administered to the extent of inducing semi-narcotism, and beef-tea in such quantities as the stomach would retain. There had been no dejection, nor had she passed water. With the catheter, I drew off about a quart of bloody-looking urine, which seemed to afford her some relief.

On Friday, there had been no abatement of the symptoms, so fatal in their tendency, and the only perceptible changes in the patient were, cessation of pain, greater irritability of the stomach, and failure of strength. The matters vomited were now of a dirty-greenish color, but not particularly offensive. From the time I first saw her, there had been scarcely any discharge from the vagina. An examination per vaginam furnished no clue to the existing lesion. The parts, including the entire vulva, were very much inflamed and swollen. She died at 6, A.M., on Saturday. The undertaker applied to me for a certificate of the cause of death. I could not conscientiously furnish one without further opportunities for examination. The friends consenting, a *post-mortem* was arranged for 2 o'clock, P.M., eight hours after death.

The surface presented nothing worthy of note, excepting great distension of the abdomen, which was somewhat pear-shaped. The vulva was "black and blue." Rigor mortis well marked. On making the first incisions, great care was required to avoid wounding the intestines, which were much inflated and glued together. The surface of the bowels, except at their junctions, was not covered with any amount of exudation, but appeared dry and glistening. The sanguineo-serous effusion into the peritoneal cavity was very slight, not more than four ounces, without coagula, and resembled the lochial discharge. Carefully lifting the bowels, we discovered on the right side of the pelvis, on the long axis of the vagina, about midway between the anterior and lateral mesial lines, a laceration about three inches in length, extending completely through the vaginal wall, and involving about an inch of the peritoneal covering of the uterus. The edges of the laceration were ragged, with no indication of previous disease, but presenting the appearance one would expect from a recent wound of the part, from a mechanical cause. A finger introduced into the vagina was met by one of the other hand passed through the laceration from the abdominal cavity. By turning the uterus a little, the os uteri, in a perfectly healthy condition, was brought into view through the laceration as we looked from the abdominal cavity. Both the external and internal appearance of the uterus was found, on thorough examination, to be perfectly natural, the laceration involving only its peritoneal covering.

The examination was made in presence of the "Physopathic Doctor" who first officiated in the case, and also my friends and fellow-townsmen, Drs. Joseph Murphy, H. B. Hubbard, Ira Sampson and John B. Chace; Dr. Chace assisting in the examination, and Dr. Murphy taking notes.

The following points were given by the "Physopath:"—

"The os was fully dilated at 2, P.M. The delivery of a still-born infant was immediately followed by the placenta, at twenty minutes before 9, P.M. After the exhibition of ergot, one pain caused the expulsion of the child and placenta. The character of the pains was not such as to lead him to apprehend any unnatural occurrence. The presentation was natural." "It was a dry labor," said he; "I had to keep my hand greased all the time, and *it was as much as I could do to pass it round the head of the child.*"

I should not omit to state that the child was large, weighing 11 1-2 pounds, as I was informed by the friends, on my first visit.

Query.—Is rupture of the upper part of the vagina and merely the peritoneal covering of the uterus, likely to occur during natural labor, when there has been no previous disease of the tissues involved?

RECTO-VESICAL LITHOTOMY—BOZEMAN'S BUTTON SUTURE.

BY J. F. NOYES, M.D., WATERVILLE, ME.

[Communicated for the Boston Medical and Surgical Journal.]

HISTORY shows that this operation (recto-vesical) dates from about the beginning of the present century. M. Sanson, in an inaugural thesis, first described the operation. Of the several methods therein laid down, M. Maisonneuve, in later years, made an important modification. These all are fully described in systematic works on surgery, and call for no special mention from us here.

From the frequent evil results and ill success consequent upon the escape of stercoraceous matter into the bladder, and infiltration of urine, preventing the cicatrization and healing of the cut, the operation became obsolete.

The discovery of the "silver wire suture," the wonderful success consequent upon its use in treating vesico-vaginal fistules in the hands of Dr. Sims and others, led naturally to a trial of it in this (the recto-vesical) operation. Accordingly, we find that, in 1859, Dr. S. first applied it in the case of a recto-vesical operation performed by Dr. Bauer, of Brooklyn. The wound healed by the first intention, in eight days, and its employment here was announced as the beginning of a new era in lithotomy. At that time we had our second patient on whom we were about to operate for stone, and we decided to give it a trial.

The following is a report of the case.

A Mr. Jones, of Corinna, Me., aged 39, of a healthy and vigorous constitution, for more than three years had been troubled with more or less pain and distress in the bladder, particularly when urinating. At the time of our first visit, he had been confined to the room, under the care of a physician, for several months, and was in a very emaciated and feeble state from protracted suffering and from a large open abscess under the throat.

Introducing carefully a sound, I detected a stone lying loosely in the bladder. Upon further examination, it was thought best to postpone the proposed operation for at least one month, with the hope that he would then be in a more favorable condition. At the expiration of this time, however, our patient was scarcely any better, and there appeared nothing to be gained by delay.

Oct. 21st, 1859, in the presence of a number of medical gentlemen, and with the assistance of Drs. Benson of Newport, and Wilson of Dexter, the patient being fully etherized, and placed in a convenient position on the left side, with the thighs flexed, I proceeded with the operation as follows:—dilating the rectum with an ordinary speculum (not having Simms's at hand, which I very much regretted), the bladder being partly filled with lukewarm water, and a sound introduced and held by an assistant, I then made out with my finger the situation and limits of the prostate gland. With a two-edged scalpel, a cut was made through its central portion and bilaterally enlarged sufficiently to enable me to introduce my index finger, when it was dilated a little. The forceps were now introduced, the stone seized and extracted without much difficulty.

The stone is of an oval form, quite hard, with a rough surface, and measures, in its long diameter, an inch and a half; in its short diameter, three quarters of an inch. I have not yet had it analyzed, so as to know of what it is composed. Six silver-wire sutures were required to bring together and coaptate the edges of the wound. Upon these I adjusted "Bozeman's button," in the manner I had seen him apply it in the case of a large vesico-vaginal fistula, operated upon by him in the fall of 1858, at the "Hotel Dieu," which united by the first intention, and was cured in eight days.

On the twelfth day after the operation I removed the apparatus, when it was found united by the first intention, save a small place in the centre. I could not be surprised at this slight failure, in view of the very unfavorable state of our patient at the time. A few touches, however, with nitrate of silver, from my colleague Dr. Benson, under whose care the patient was left during my absence, was all that was necessary, as it closed by granulation in a short time. It was observed that a sliding down of a fold of the rectum over this small opening seemed to guard against the escape of anything into the bladder while it was healing.

Our patient was obliged to keep his bed for a long time, on account of a large bed-sore on one of his hips, which was very slow

in healing. But, at the end of three months, he was weighed, and it was found that he had gained about seventy pounds, making his entire weight two hundred. Both of these patients (the first operated upon by the lateral operation more than three years since), are now in good health.

It may be important to state, in closing this report, that both of them had used, for a number of years, water from wells containing lime.

Nov. 20th, 1860.

GALVANO-CAUSTIC OPERATIONS AND LARYNGOSCOPY.

WE quote the following from an interesting letter from Vienna, published in the *Edinburgh Medical Journal* :—

“ Two subjects have lately engrossed the attention of practical men in Vienna—Galvano-caustic operations, the surgeons; and Laryngoscopy, the physicians. The former was introduced into Vienna by Dr. Zsigmondy, *Primär wundarzt*, or chief-surgeon in the *Allgemeine Krankenhaus*. He has been at great expense in the manufacture and improvement of Middeldorpf's ingenious apparatus, which was the first employed in this city; and he has used it very extensively in his practice. He soon convinced the profession of its manifold utility, and its applicability to all sorts of operations; and he has fairly established for it an honorable place among our recognized surgical instruments. This speaks greatly in favor of the apparatus, if, setting aside the charm of novelty which attaches for a time to many inventions, we reflect how very few new instruments are really worthy of being admitted into the surgical armamentarium. Zsigmondy has published the results of his operations with the galvano-caustic apparatus, in a series of articles in the *Wien Medic. Wochenschrift*, and has sent reprints of these papers to most of his friends. It reflects very great credit on Dr. Zsigmondy, that here, in Vienna, where the most trifling surgical matters are taken up and monopolized by eminent professors, he has been able, unaided and single-handed, to bring his system into good repute and extensive popularity in so very short a time.

“ As regards Laryngoscopy, I think that this novelty has wrought more mischief than benefit in Vienna; for, ever since it was first heard of, it has been the occasion of constant squabbles and miserable contentions. First of all, the profession began to quarrel about the priority of the invention, and as to who was entitled to the honor of the discovery. Innumerable articles appeared in the medical press, containing the most contradictory statements, showing how very little the writers really knew about the subject, and evidently published by men who rushed into print for the sake of appearing as authors. The controversy has lately broken

out afresh, and little wonder, for one of these critics has solemnly written that a patient should not be laid on his face if we wish to look down his windpipe!

"You, in England, must not be jealous of foreigners claiming all the credit of the discovery, for some share of the merit undoubtedly belongs to you. At the commencement of the discussions on the subject, Dr. Joseph Gruber, of Vienna, reminded the disputants that, in honor, justice and truth, a share of the credit of its invention should be awarded to your distinguished countryman, Mr. Wilde, of Dublin, who, in his admirable work on Diseases of the Ear, had recommended a similar instrument for the purpose of examining the pharyngeal extremity of the Eustachian tube. To be sure, the little mirror was not called a laryngoscope by Mr. Wilde; but still, to quote the words of one of our most celebrated poets, 'Wo Begriffe fehlen, stellt zur rechten Zeit das Wort sich ein.'

"By means of this little instrument we have been enabled to examine carefully the whole of the interior of the larynx, and to watch the mechanism of the complex organ of voice. The instrument may prove very useful both in a physiological and pathological point of view, but, as yet, we have not gained much additional knowledge from its employment. Should anything of importance occur in connection with its use, you may depend on my losing no time in acquainting you with the full particulars."

THE CAUSE OF DEATH IN DROWNING.

BY M. BEAU.

DEATH in cases of drowning has been attributed to various causes—the introduction of air into the stomach, into the bronchial tubes, closure of the epiglottis, syncope, and asphyxia. M. Beau believes that the cause of death is asphyxia from want of respirable air; but that the small quantity of water which enters the bronchial tubes requires to be explained. Is it that, in drowning, there is an arrest of the respiratory movements? To the solution of this question, M. Beau has applied himself, and has performed the following classes of experiments, which are recorded in the *Archives Générales de Médecine* for July, 1860.

CLASS I.—A dog is plunged rapidly into a vessel of clear water, and held there on its back. At the first moment, on its surprise, it makes a more or less complete inspiration; this is immediately followed by a jerking inspiration, during which a tolerably large quantity of air escapes in bubbles to the surface of the liquid from the mouth and nose. After this, there are no further expiratory movements. The animal struggles, and there is energetic action of its trunk and limbs; but no more inspiration or expiration. The lips remain convulsively closed. In about two

minutes, the movements cease completely; but the animal is not dead, and, if now withdrawn from the water, it may recover. Death does not take place until two or three more minutes have elapsed. On *post-mortem* examination, the lips are found to be firmly closed; the glottis is also closed. There is a variable quantity of frothy water in the small bronchial ramifications, the trachea, and frequently the large bronchial tubes. There is also a little water in the stomach, and some emphysema of the lungs.

CLASS II.—A dog is plunged into water in the same way, and removed at the end of two minutes, when he had ceased to struggle, and had lost consciousness without being really dead. He soon performs some respiratory movements, and opens his eyes; presently he rises on his feet; and gradually, without cough or symptoms of suffocation, he recovers rapidly and completely. If the animal be killed by pithing while he is recovering, and if the chest be opened immediately, frothy water will be found in the air-passages, as in the first class of experiments.

CLASS III.—The trachea of a dog is opened, and a canula is introduced. The animal is immediately plunged into water, and held under it on his back. Scarcely has submersion taken place, when air enters the chest by an inspiration, probably through the glottis and the canula; this is immediately followed by a jerking expiration or cough, during which bubbles of air escape from the mouth and through the canula. After this, the course of the symptoms and the *post-mortem* appearances are the same as in the first class.

CLASS IV.—The trachea of a dog is opened, and a canula is introduced, as in the third class of experiments. The animal is held under water, with his head free, but so that the opening of the canula is under the surface of the fluid. Immediately on this complete submersion taking place, water is drawn by an inspiration through the canula, and is partly rejected by cough by the same passage, with a certain quantity of air which escapes in the form of bubbles. The respiratory movements now cease, and the animal becomes restless; but, in a few seconds, respiration returns, and the animal makes regular inspirations and expirations, bubbles of air escaping at each expiration through the canula, and forming a froth on the surface of the water. As the inspiration of water goes on, and the interchange between the water and the air from the bronchi becomes complete, the quantity of bubbles diminishes at each expiration, until at last nothing but water passes through the canula. At last all movements cease, and the animal dies in the course of five minutes. On examination, the trachea and bronchi are found to be literally filled with water, which is not frothy. The lips and glottis are not convulsively closed, as in the former experiments.

CLASS V.—This a modification of the second class of experiments, introduced to show that the mere withdrawal of the muzzle

from the water, so as to leave the respiratory orifices free, while the rest of the body remains submerged, is sufficient to bring about recovery.

CLASS VI.—When the trachea of an animal is constricted by a ligature so that no air can pass, the animal struggles as if drowning; for about two minutes, he opens his lips and nostrils as if to admit air. In five minutes, death occurs; and, on examination, nothing is found in the bronchi, but the lungs are congested and emphysematous.

These experiments are held to show that death takes place in drowning from an irresistible horror of the water inducing an arrest of the movements of respiration and closure of the respiratory orifices; and that this takes place irrespectively of the actual introduction of a small quantity of water into the air-tubes at the moment of submersion. There is, then, in the words of M. Beau, a *hydrophobia of inspiration* in the drowning, analogous to the *hydrophobia of injection* in persons bitten by rabid animals. The last class of experiments show that death in these cases is comparable to that which arises from strangulation.—*Gazette Hebdomadaire*.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

OCT. 22d.—*Three Calculi from the Intestine of a Horse.* Dr. JACKSON showed the specimens, which Mr. Robert T. Edes, a member of the present medical class, had recently obtained from a man who met with them on slaughtering a horse at an establishment where useless animals are so disposed of. The largest is about $3\frac{1}{2}$ inches in diameter, and weighs 2 pounds $3\frac{1}{2}$ ounces; form very regular; rounded, with some flattening, and with one marked facette. The smallest was between 2 and 3 inches in diameter, weighed $9\frac{1}{2}$ ounces, was not rounded, and had very marked facettes; having been sawed, the concentrically-laminated structure was strongly marked, and for a nucleus there was found a piece of iron, a few lines in diameter, as it appeared upon the cut surface. The third specimen weighed $18\frac{1}{2}$ ounces, and was intermediate between the two others in regard to size and facettes; on section, it resembled the second in structure, and in having a piece of iron for its nucleus. In all of the three the color was a pale brownish, with a mixture of gray; the structure of the two that had been sawed was rather coarse than otherwise; and the laminated structure of the largest perfectly well marked externally.

The following is the result of the chemical analysis as made by Dr. James C. White:—

Mostly triple phosphate of ammonia and magnesia. A little phosphate of lime, and a trace of carbonate of lime. There was a considerable amount of silica also mixed mechanically with it, and some little animal matter.

The calculi have been presented by Mr. Edes to the Museum of the Medical College.

OCT. 22d.—*Tumor of the Neck, composed of a large number of Caseous Nodules; same Disease in the Abdomen; Paraplegia, without Lesion of the Nervous Centres.* Dr. ELLIS showed the specimens, and gave the account of the case, which he received from Dr. Bancroft, the Physician of the State Prison in Charlestown.

A young man, 28 years of age, was sent to the State Prison on Jan. 7th, 1860, and was soon after admitted to the hospital. A tumor, which first made its appearance under the chin, gradually enlarged, until it occupied the side of the neck, from the angle of the jaw to the clavicle. It was very firm and quite irregular, as if composed of many separate masses. He moved slowly, as if the spine was affected. Five days before death, there supervened complete paraplegia of the parts below the arms, the exact limits not being ascertained. After this he gradually sank, without any other peculiar symptom. The tumor had previously been regarded as the only disease.

Autopsy by Dr. ELLIS, 48 hours after death. The mass in the neck was composed of a large number of distinct, yellow, caseous nodules, apparently much more numerous than the lymphatic glands of that region. Many of them had softened in the centre. Some of the masses were surrounded by a reddish material, which resembled gland-tissue. The bronchial glands had undergone the same change, and in the lumbar region, around the cæliac axis, were masses of a similar character.

A microscopic examination showed nothing more than small corpuscles, of the character of those which have been described in connection with tubercular disease.

The central parts at the base of the brain were somewhat softened, and there was, perhaps, a little softening of the spinal cord, but these changes were not such as to attract much attention, as the examination was made 48 hours after death. The other organs were normal.

The case was considered interesting, both on account of the peculiar appearance of the new formation above described, and the paraplegia, which supervened a short time before death. For this there was no apparent cause. It is to be regretted that a microscopic examination of the nervous centres was not made, and that a more complete description of the case itself could not be given, but, imperfect as it is, it may serve to introduce two others, reported in the most accurate manner, and in which the paraplegia was entirely unexplained.

These are reported at length in the 19th volume of *Virchow's Archiv. für Pathologische Anatomie*, by Prof. A. Kussmaul. An abstract is given below.

The first case was that of a student, 22½ years old, who had caries of the ankle from his sixteenth to his twenty-first year. After exposure to cold, he noticed some oppression in the head, numbness of the fingers and toes, and lost his appetite. On the first and second days of his illness he vomited, partly without cause, partly immediately after the use of the infusion of rhubarb. The paralysis increased until the third or fourth day, by which time there was complete loss of power over the voluntary muscles of the trunk and extremities. Edema of the lungs made its appearance at the same time, causing great dyspnoea, until it terminated in death, the consciousness and speech remaining unaffected until the last.

Nothing was found after death but hyperæmia of both lungs and

œdema of the right. A microscopic examination of the medulla oblongata and spinal cord showed nothing abnormal.

In the second case, the patient, who was 51 years old, had suffered for eighteen months from violent pain in the head and face, also ozæna and cough. On the 6th of May, 1859, he was attacked with pain and progressive paralysis in the upper and lower extremities, commencing in the right arm and left leg. On the 15th of May, he suddenly expectorated much purulent, offensive matter, was attacked with violent fever and delirium, and died with pulmonary symptoms on the 19th. An accurate examination on the 15th showed conjunctivitis, a superficial ulcer of the cornea, slight paralysis of the left abducens nerve, double vision, diminution of the sense of smell, slight paralysis of the muscles of the lips, complete paralysis of the upper arm and leg; almost complete, of the forearm and hand, slight activity of the muscles of inspiration, and dulness on percussion over the upper parts of both lungs.

At the autopsy, nothing was anywhere found to explain the paralysis, even on microscopic examination.

The paralysis was attributed to marasmus and insufficient nourishment of the central organs, which is analogous to what is seen in paraplegia resulting from the closure of the aorta, losses of blood, &c.

Nov. 12th.—*Sore Mouth from filling a Tooth with Zinc Paste.* Dr. COALE was called to a young lady suffering great pain in her face. Her lips, particularly the lower one, were very much swollen, and presented some erosions on the inner surface. There was some increase in the flow of saliva. With these, there was constitutional disturbance, shown by headache and fever. Mild saline aperients were prescribed, but the local symptoms became worse. Upon getting further at the history of the case, it was found that she had had two teeth filled, a week before, and the filling consisted of some new patented article that was inserted in the form of a paste, and then hardened. This filling was removed, and the symptoms, up to that time getting worse, immediately amended, and a day or two restored her to health. Upon examination, it was found that the filling was composed of oxy-chloride of zinc, made at the instant, by mixing the liquid and highly caustic muriate of zinc with the oxide of zinc. These make a paste which soon hardens or sets. Dr. C. found several other cases where the same effects had been produced in the same way. In one instance the soreness lasted more than a week, the patient being entirely ignorant of the cause. The substance has been largely circulated among dentists, with strong recommendations to use it; but it appears to be highly objectionable, and in some cases might produce very deplorable results, were such symptoms as were witnessed in this case protracted or developed to a greater degree.

Nov. 12th.—*Parotid Tumor.* Dr. GAY showed the specimen, which he had taken from a man 74 years old. The tumor was first perceived about three months ago, being at that time of the size of a small pea, painless, and movable under the skin. During the succeeding two months it increased very slowly, and was attended with dull pain, and with a general feeling of uneasiness. During the last month the growth has been more rapid, the pain more severe, and occasionally shooting over the face. The jaws gradually became stiff, so that he could not separate them more than half an inch, and was prevented from taking solid food.

The tumor was of about the size of a hen's egg, situated in front of the right ear, well defined, and it occupied nearly the whole parotid region. It was hard at the lower or deeper part, was very firmly attached at the base, and but slightly movable. The skin over it was not involved, and could be easily moved upon it.

The wound is now nearly healed, and only a slight scar will remain. There is considerable paralysis on that side of the face.

Dr. ELLIS examined the tumor, and made the following report on it:—"Some portions were soft and red, others soft and whitish, while others, again, were firm, bluish-white, and fibrous or even cartilaginous in structure. At one point was a firm, yellow, osseous-looking mass, upwards of a quarter of an inch in diameter. On microscopic examination, the softer portions were found to be composed of fibrous tissue, or delicate fusiform cells, and nuclei, such as occur in fibroplastic growths. The firmer, bluish-white portions were either fibrous, or homogeneous and translucent; well-marked cartilage-cells being seen in some portions of the last. A section of the apparently osseous nodule was made by Mr. Edes. It contained numerous dark, irregular points, but nothing that was really characteristic of a Purkinjean corpuscle; neither were there distinct laminae."

Nov. 12th.—*Pneumonia fatal in Eight Days, without well-marked Symptoms. Hypertrophy of the Heart. Disease of the Kidneys.* Dr. SHATTUCK reported the following case, in which there was a remarkable absence of symptoms denoting a rapidly fatal issue.

The patient was an Irishman, 20 years old, a widower, who was well previous to Oct. 30th, when he had a stitch in his right side, after marching in a torch-light procession. He had been drinking freely for several weeks previously. He walked to the Hospital. On entrance, his pulse was at 108. He had some soreness in the chest on full inspiration; could not lie on the right side; was restless, and had cough, with grumous expectoration, which was quite foetid, as was also his breath. He was prostrated, and complained of loss of sleep. The physical signs were dulness on percussion, with bronchial respiration and subcrepitant râle in the lower right front of chest.

On the day after his entrance the patient was breathing with some difficulty. The pulse was at 100, quick, strong and regular. The skin was rather moist. The breath and sputa had a decidedly gangrenous odor. In the afternoon he began to sink. At 10 o'clock, he spoke very rationally of being refreshed after a comfortable sleep, but there was a good deal of rattle in the throat. He said he was dying, and asked to have a priest sent for. He died at 4½ o'clock, on the morning of the 9th. The urine was not examined.

Dr. ELLIS exhibited the organs. The brain was normal. There were pleuritic adhesions on both sides—old on the left, recent on the right. The right lung was very large, solid and heavy, weighing six pounds. The upper lobe was solidified, friable, and of a greyish or yellowish color, mingled with red; in other words, it was in a state of red and gray hepatization. The middle, and the upper part of the lower lobes were in the same condition. The remainder of the lobe was cedematous and congested. The posterior and central parts of the lower lobe of the left lung were somewhat solidified, friable, and filled with red serum. The upper lobe was cedematous. The weight of the lung was a little over two pounds. There was no offensive odor, and no cavity in either lung. The heart was universally hypertrophied;

weight, 14 ounces. No valvular disease. There was some atheromatous disease of the aorta. The liver was large; weight, $5\frac{1}{4}$ pounds. The kidneys were of large size, soft and flaccid. The cortical substance was thick and light colored, and contained numerous opaque yellow spots. The tubuli were crowded with epithelial cells. The opaque yellow spots showed a large quantity of fat. The spleen contained a thin capsule, two-thirds of an inch in diameter, which was filled with a white, caseous substance, containing fat globules, cholesterine, &c.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, NOVEMBER 29, 1860.

THE ETHERIZATION PATENT.—The following communication to the Editors will show that no fears need be entertained with regard to the possible penalty of an infringement of the patent for the exclusive use of ether:—

“MESSRS. EDITORS,—Recent newspaper notices have contained statements that the application made by W. T. G. Morton, formerly of Boston, for the further extension of a patent for the exclusive use of ether in surgical operations, has been rejected by the Commissioner of Patents at Washington.

“Inasmuch as threats of prosecution for such use of ether have not been infrequent, and as, in one case at least, in Boston, such a prosecution has been instituted and carried forward, though, as we believe, terminating at the trial with a remission of the claim for damages, we have deemed it of interest to the medical profession and to the community, to ascertain the facts in relation to this patent.

“Fourteen years ago, a patent was issued from the United States Patent Office for the exclusive use of ether, in surgical operations, to C. T. Jackson and W. T. G. Morton, the first-named gentleman having permitted his name to be used at the Patent Office solely with a view to secure his scientific rights as the original discoverer of the anæsthetic effects of ether when inhaled. This patent expired on the 12th of November, 1860. Some few months since, W. T. G. Morton filed his petition in the office of the Commissioner of Patents, praying for an extension to him of this patent for a further period of seven years. It is understood that he solicited Dr. Jackson to join in this petition, or to make to him an assignment of the Doctor's right to an extension. The files of the Patent Office show not only no such union in any petition, no such assignment of the Doctor's right to any extension, but some activity on the part of Dr. Jackson against the extension of the patent, in putting on file a remonstrance, printed evidence and an argument thereon.

“The Commissioner, the Hon. Philip F. Thomas, has rejected the petition for a renewal, and the patent has now no existence. The medical profession will thank the Commissioner for thus rejecting this application for the extension of this odious and absurd patent—a patent that ought never to have been issued, one which would never

have been granted had the Commissioner known all the facts at the time it was originally obtained.

"Hereafter no surgical operator will have any reason to be disturbed with threats of prosecution for his use of ether from any holder of a patent.

"*Boston, November 21st, 1860.*"

SALTS IN THE TREATMENT OF DYSENTERY. *Messrs. Editors*,—Any one disposed to test the value of "Salts" in the treatment of dysentery, as recommended by Dr. Jackson in your last issue, may find in the Dispensatories a formula for preparing the article, which has long been a popular one and has the advantage of being required in a small amount at once. The formula is : Glauber's salts, ʒi. ; water, ʒ iij. ; nitric acid, muriatic acid, each ʒi. ; alum, ʒss. Dose, a large tablespoonful.

I have used it for some years, both in dysentery and chronic diarrhœa, and its use has been followed by recovery sooner than I have found it to be after any other prescription.

When the wholesale throwing overboard of drugs shall take place, our humane feelings will be comforted by the reflection that this medicine, at least, will not be "worse for the fishes," as sea-water already contains most of its ingredients.

B.

AMPUTATION AT THE KNEE-JOINT. *Messrs. Editors*,—Last summer I had an opportunity of witnessing a mode of operating in the region of the knee-joint, which is not laid down in any of the books on surgery with which I am acquainted. The patient was a young man, about 25 years of age. He had necrosis of the tibia, and it was thought necessary to amputate above the knee-joint, which was done as follows, viz:—by the flap operation; one flap taken anteriorly, and the other posteriorly; and in the anterior flap was left the patella. The femur was sawn off just above the condyles, and the patella was brought against the exposed head of the bone, between which two bones, an apparently good union has taken place.

The advantage from this mode of operating is, that you get the external surface of the patella for the end of the stump, in place of the cut end of the bone.

If you think the above worth publishing, please give it a corner in the next JOURNAL, and oblige yours, truly,

E. B. MUTTART.

Boston, Nov. 21, 1860.

N. Y. OPHTHALMIC SCHOOL.—The Introductory to the Ninth Session of this flourishing School, was delivered Nov. 10th, by Dr. Mark Stephenson, the Senior Surgeon to the Ophthalmic Hospital, at No. 63 Third Avenue, near Eleventh St. After welcoming the medical students and members of the profession to the Institution, and saying a few words congratulatory upon the comparative harmony that exists in the ranks of the medical profession in these days of strife, the lecturer reached the main subject of his discourse, which was—"The Scientific Surgeon as distinguished from the mere Operator."

The following extract contains truths which all sound practitioners should be prepared to admit:—"He who treats diseases of the eye at the present day, if he would be successful, must treat them upon

philosophical and rational principles. When he meets with disease in the mucous, serous, glandular, fibrous or nervous tissues of the eye, he will treat them upon the same general principles that he would similar structures in other parts of the body. When he meets with constitutional causes, or complications of any kind, he will modify his treatment accordingly; he will be guided by the same rules that would dictate themselves in complicated disease elsewhere. Constitutional remedies now form an important and formidable item in the treatment of ophthalmic affections; and here allow me to add, that he who loses sight of this view of the subject will fail of success. It is for the want of these comprehensive views in ophthalmic surgery that thousands have erred in their therapeutical treatment of the eye.

"The same skill and judgment will be required not only in the various operations upon the eye, but also in the after-treatment. An operation may be ever so well performed, yet if the subsequent treatment be not judicious, it may fail of success. The *mere operator* is distinguished by the number of mutilations he has committed; the *surgeon*, by the number of cures he has effected. The surgeon consults the happiness, comfort, and ultimate safety of his patient; the mere operator studies his individual interest or notoriety, irrespective of all other considerations. The mere operator goes by the minute, as if running a race; the surgeon has for his motto *sat cito, si sat bene*. The one is fearless and ostentatious, and the other cautious, yet bold; anxious, yet calm. The one glories in the knife; the other seeks it as the last resort. The one is rendered a blessing to society, and an honor to his calling; the other is odious to his brethren in the profession, and a curse to the community in which he lives."

Dr. Stephenson's lectures will be continued to the month of March, and clinical instruction given three times a week, assisted by his associates, Dr. Garrish and Dr. Stephenson, Jr. At the close of the term, an examination and ophthalmic diploma will be given to the graduating class, signed by Chancellor Ferris, Prof. V. Mott, and the attending surgeons. We are informed that the class promises to be much larger during the present session than on any former occasion.

SOCIETY FOR THE PREVENTION OF PAUPERISM.—From the twenty-fifth Annual Report of the Boston Society for the Prevention of Pauperism, we extract the following:—

Recapitulation.—Applicants in the office for females, for the year ending Sept. 30, 1860, 3,356; viz., 484 Americans or Protestants, 2,872 others: 268 were fifteen years or under; 753 were between fifteen and eighteen years of age.

Supplied with employment, 2,573; viz., 326 Americans or Protestants, 2,247 others: 195 were fifteen years of age or under; 530 were between fifteen and eighteen years of age. Places in the city, 1,250; in the country, 1,323.

Applicants in the office for males for the year ending Sept. 30, 1860, 1,255; viz., 700 adults, 555 minors.

Supplied with employment, 421; viz., 268 adults, 153 minors. Places in the city, 71; in the country, 350.

Summary.—Total of applicants, 4,611; viz., 3,356 females, 1,255 males. Supplied with places, 2,994; viz., 2,573 females, 421 males. Places in the city, 1,321; in the country, 1,673.

NEW MEDICAL JOURNAL.—We have received the prospectus of a new monthly journal of medicine, to be published under the auspices of the Berkshire Medical Society, entitled the *Berkshire Medical Journal*. It is to be edited by Drs. Wm. Henry Thayer and R. Cresson Stiles, Professors in the Berkshire Medical College, both of whom are well fitted for the post with which they have been entrusted. It will be the object of the Journal, says the Prospectus, "to advance, as far as practicable, the interests of rational medicine, extending the conquests of positive science over the domain of tradition." The first number is to be issued on the first of January, 1861.

EFFECTUAL USE OF THE SPONGE TENT IN STERILITY.—M. Pfeiffer mentions, in *L'Union Médicale* of the 28th ultimo, that Prof. Stolz, of Strasbourg, succeeded in removing sterility in the case of a healthy childless couple, who had been married four years. On examination, the cervix was found extremely narrow and very rigid. The use of tents of prepared sponge for a month or six weeks, with an occasional warm bath of an hour's duration, was advised; and the lady became pregnant two months after beginning the treatment. She was eventually delivered of a healthy boy. This procedure seems to M. Pfeiffer preferable to the division of the cervix, as advised by Dr. Simpson, especially where the patients object to the use of the knife.—*London Lancet*.

A HOSPITAL FOR NEGROES has been established at Charleston, S. C. The medical attendants are Dr. Cain, Physician, and Dr. Chisolm, Surgeon. It is to be opened for clinical teaching.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, NOVEMBER 24th, 1860.

DEATHS.

	Males.	Females	Total
Deaths during the week,	31	38	69
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	26.9	26.6	73.5
Average corrected to increased population, . . . . .	..	..	82
Deaths of persons above 90, . . . . .	..	1	1

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infan.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
15	0	7	2	0	0	0	1

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	29.800	Highest point of Thermometer,	53°
Highest point of Barometer,	30.282	Lowest point of Thermometer,	26°
Lowest point of Barometer,	29.320	General direction of Wind,	N. W.
Mean Temperature,	41° 30'	Whole am't of Rain in the week	0.551

For the week ending Nov. 17th (omitted in our last issue):—Mean of barometer, 29.836; highest point of barometer, 30.210; lowest point of barometer, 29.366. Mean of thermometer, 45° 02'; highest point of thermometer, 56°; lowest point of thermometer, 29°; general direction of wind, Northwest; amount of rain, 1.653 inches.

MARRIED,—In this city, Nov. 22d, A. Ruppaner, M.D., to Miss Susie H. Mower, both of Boston.

DIED,—In Cumberland, R. I., Joseph Edwin Warren, M.D., aged 47 years, formerly of Ashby, Mass.—At Amiens, France, Dr. Joseph James Lloyd Whittemore, a native of Scituate, Mass., a graduate of Harvard University in the class of 1832, and for sixteen years a resident of Rio de Janeiro, 49.

Deaths in Boston for the week ending Saturday noon, November 24th, 69. Males, 31—Females, 38.—Asphyxia, 1—inflammation of the bowels, 1—rupture of the bladder, 1—congestion of the brain, 1—disease of the brain, 1—burns, 1—cancer, 2—cholera morbus, 1—consumption, 15—croup, 1—convulsions, 1—debility, 1—diarrhœa, 2—diphtheria, 1—puerperal disease, 1—dropsy of the brain, 6—scarlet fever, 7—typhoid fever, 1—gangrene of the lungs, 1—disease of the heart, 1—disease of the kidneys, 2—congestion of the lungs, 1—inflammation of the lungs, 2—œdema of the lungs, 1—marasmus, 2—old age, 2—peritonitis, 2—pleurisy, 1—premature birth, 2—disease of the prostate gland, 1—scrofula, 1—teething, 1—unknown, 3—whooping cough, 1.

Under 5 years, 28—between 5 and 20 years, 5—between 20 and 40 years, 17—between 40 and 60 years 11—above 60 years, 8. Born in the United States, 42—Ireland, 20—other places, 7.

THE

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No. 19.

PUERPERAL CONVULSIONS—EXPECTANT TREATMENT—RECOVERY.

[Read before the Norfolk District Medical Society, Nov. 14th, 1860, and communicated for the Boston Medical and Surgical Journal.]

BY J. P. MAYNARD, M.D., DEDHAM.

OWING to the comparative rarity of the occurrence of puerperal convulsions in the private practice of most physicians, it is difficult to obtain a sufficiently extended basis, to form any decisive opinion from personal observation. It is in that view more important that all should contribute their quota, however limited, that others may, from the aggregate thus obtained, adduce conclusions that may either favor, qualify, or alter the method of treatment they have deemed most beneficial in similar cases. In furtherance of this object, I have very briefly condensed a report of seven cases that have occurred under my care.

These cases comprise primiparæ and multiparæ—all robust and plethoric. In two of these, the convulsions occurred *previous* to delivery and not subsequently—in two others they existed *after* delivery and not previously. In three cases they took place both before and after delivery. In only one of them were the forceps deemed advisable.

CASE I.—Mrs. H. P., æt. 30, multipara, of rather large size, and healthy, was taken with labor-pains on the night of Dec. 23, 1849, and was delivered, naturally, on the morning of the 24th of a living female child. Placenta expelled without difficulty.

On the 25th she was quite comfortable, the usual after-pains being slight.

26th.—Slept well last night, and was free from any trouble. Doing well.

On the 27th, I was sent for in great haste at 9, A.M. On arrival, found she had been suddenly seized with puerperal convulsions, immediately after being got out of bed into a chair. Found her with trismus of lower jaw, eyes fixed and staring, pupils insensible to

light, the whole muscular system violently convulsed, and the usual frightful aspect of this disease. Pulse small and weak, extremities cold, face sunken, with frothing at the mouth, and the peculiar hissing respiration common to such cases. This was followed by the usual profound coma. As soon as the power of deglutition would permit, carbonate of ammonia was administered every hour.

6½, P.M.—Has had convulsions of frequent occurrence and long continuance, alternating with profound coma. Applied mustard sinapisms to calves of legs and soles of feet.

28th.—Was free from convulsions from 10 last night till 5 this morning, when they again recurred. I now made trial of the remedy recommended so highly by Dr. Hamilton—gum camphor, one grain every half hour, accompanying it with a stimulating injection.

4, P.M.—Notwithstanding the administration of the camphor for the last ten hours, as well as a free operation from the bowels, the convulsions continue as severe and frequent as before. Strong beef-tea, by injection, was ordered when she was too insensible to swallow.

9½.—Convulsions still continue, though less frequently.

29th.—The convulsions, of thirty-six hours' continuance, have been succeeded by natural sleep of two hours' duration, from which the patient awoke, and has had no difficulty since.

CASE II.—April 30, 1851, was called to Mrs. J. P., æt. 28, primipara, short, stout, and in robust health. The labor-pains, which had begun at 8, P.M., the evening previous, were now tolerably strong, and the os uteri was dilating well, but the perinæum was very rigid, and the progress of labor slow. At 11½, during a severe pain, a convulsion occurred, lasting five minutes. In half an hour afterwards, the child was expelled, stillborn. The placenta soon followed. In ten minutes after its expulsion there was another convulsion. During the succeeding twenty-four hours, thirteen convulsions took place, the last one being very severe, terminating in coma of four hours' duration, which gradually passed off, and for the first time in twenty-four hours consciousness returned.

May 2d, forty-eight hours after confinement. Is doing well, and has had no return of the spasms.

In this case no specific remedy was used. Ice to the head and mustard applications to the feet were, however, not omitted, and small doses of carbonate of ammonia were given.

CASE III.—Mrs. W. S., æt. about 30, multipara, small figure and good health. July 26, 1856. Labor-pains commenced this morning. Os uteri dilating well. The pains becoming more severe, are now accompanied by convulsions, succeeded by coma. As the labor was progressing favorably, it was not interfered with,

and, in a short time, she was delivered of a living male child. The convulsions did not subsequently recur.

CASE IV.—Mrs. L. D., æt. 26, primipara, size above medium, florid complexion, and vigorous health. July 9, 1857. Has had slight labor-pains since early morning. At 3, P.M., they were sufficiently strong to induce her to lie down. Soon after, in the midst of a severe pain, violent convulsions ensued, followed by the usual coma, and were repeated about every three quarters of an hour until 10, P.M., when, during a convulsion, the patient was delivered of a living female child. The placenta came away within half an hour. Instead of any relief being afforded in this case by the birth of the child, the convulsions continued with unmitigated severity, and were rapidly exhausting the patient, whose appearance was now most unpromising. The extremities were cold, the countenance sunken, the pulse barely perceptible, and, she being unable to swallow, stimulants and beef-tea were given by injection. From 3, A.M., until 2, P.M., eight convulsions occurred, which had now apparently exhausted the patient's strength, and she seemed to be rapidly sinking. The pulse could no longer be felt; the respiration grew slower, and finally ceased. On auscultation, however, there was found a faint pulsation of the heart. Inflation of the lungs was resorted to, though apparently a hopeless expedient, and this was assiduously maintained for more than half an hour, when a slight gasp indicated the possibility that these efforts would not prove unavailing. A longer continuance of artificial inflation resulted in finally establishing the respiration. During the succeeding half hour the breathing barely rose to 6 in the minute; in an hour more, to 8; in three hours to 12. The patient remained in the profound coma of the last convulsion twelve hours, then gradually recovered her consciousness, without any return of them.

In this case the convulsions were equally severe, and prolonged after childbirth as before. I should not omit to mention that the aid of both ether and chloroform was resorted to, in order to allay the spasms, without producing the slightest control over them, and it was therefore abandoned. Nourishment by the mouth while she was able to swallow, and by injections afterwards, was the sole reliance.

CASE V.—Mrs. S. R., Dec. 7, 1857, multipara, healthy. Was delivered naturally, after a labor of twelve hours, of a male child. In this case the convulsions did not occur until after the birth of the child, and the expulsion of the placenta. After about an hour they ceased, and the patient regained her consciousness. This is the second instance that has come under my notice where the convulsions have occurred only *after* delivery.

CASE VI.—Mrs. F. C., æt. 25, primipara, short, stout, and in robust health. Aug. 2, 1860. Labor-pains commenced at 6, A.M.

Convulsions occurred at 12, M., and continued at intervals of about half an hour, without any return of consciousness. Great œdema of both labia. Extreme rigidity of the os uteri, which dilated very slowly. Expectant treatment. Continue ice to the head and stimulating poultices to the feet. Convulsions continued until 6, next morning, when they ceased spontaneously, but the profound coma remains. Pulse 155. Respiration feeble, and now becoming very slow. The urgency of the symptoms demanded the application of the forceps, and, the condition of the os uteri permitting, delivery was effected at 10, A.M. The coma still continued until 6, A.M., of Aug. 4, twenty hours after delivery, and forty-two hours from the commencement of the convulsions. The patient regained her consciousness, and rapidly convalesced.

CASE VII.—Mrs. H., multipara, of medium size, healthy. Aug. 28, 1860. Was taken with puerperal convulsions during the last week of gestation. Os uteri somewhat rigid and undilating. Within twelve hours, the convulsions and coma ceased, the patient recovered her sensibility, but delivery did not take place until six days afterwards, when she gave birth to a male child, without any return of convulsions.

It will be seen that the treatment of the above cases consisted in the entire avoidance of all violent remedies, dependence being placed rather on local applications and support of the system when needed, by nutriment and mild stimulants, thus affording nature an opportunity to resist and overcome the disease. The results showed her fully equal to the task.

A temporary trial of the effect of ether was attempted in Cases IV. and VI.; in the former, as has been stated, without any impression on them; in the latter they seemed to increase, though this may have been merely a coincidence rather than a result, but its further use was suspended.

That the few grains of camphor given in Case I., or the nominal dose of ammonia in Case II., had any real efficacy, can hardly be pretended. That powerful purgatives or emetics would have benefited any of them seems at least improbable. That they could have survived the Sangrado treatment, so universally recommended, may be pronounced doubtful, if not impossible. Owing to the frightful appearance of all the patients in this disease, the apparent danger of the symptoms, and consequent alarm of friends, have we not sometimes embarrassed rather than assisted Dame Nature?

We have on record the average fatality of the disease when treated according to the ordinary means advocated by high authority. In the cases reported by Dr. Collins, out of 16,414 deliveries there were 30 of puerperal convulsions. Of these, 5 died, or 1 in 6; and in the face of this appalling result, profuse bleeding was his main reliance. Prof. Huston relates 13 cases and 2 deaths, or 1 in 6½. Dr. Merriman 48 cases, with 11 deaths, or 1 in 4½ near-

ly. Dr. Dewees has attended 9 cases, and 2 died, or 1 in $4\frac{1}{2}$; he, also, was a firm believer in the lancet. Dr. Meigs has had 24 cases and 6 deaths, 1 in 4, and with that record is strong in the same faith. What the profession now most need, is a collection of statistics where the *Vis Medicatrix Naturæ* has been unfettered and enabled to assert her power.

In an able paper by Dr. Salter, some of whose views I cordially endorse, six cases are related in which he attributes the recovery to the use of stramonium. Might it not as properly be referred to his judicious avoidance of all the ordinary violent means which he condemns? Yet the administration of half-ounce doses of tincture of stramonium may be deemed bordering on the heroic, by one in favor of a conservative treatment. Had that remedy been given in the seven cases I have reported, stramonium might have obtained a credit to which it was not entitled.

Is it then asked, shall all active medication be withheld? My experience replies, the less the better. But this does not imply inactivity on the part of the physician. On the contrary, to decide whether the involuntary muscles of the womb are able in due time to accomplish the labor, unassisted, with greater safety to the mother and child; or when and to what extent shall artificial aid be given to hasten delivery; to relieve the bladder of the insensate form before its distension by urine adds to the danger of the patient; to test if the albuminous condition of the urine establishes the diagnostic that may prove probably a coincidence, but possibly a cause; all these, and other points that suggest themselves to clinical experience, will be found to tax the judgment of the physician and the resources of medical art, to insure the welfare of the patient, quite as much as the more popular routine of bleeding ad deliquium, the use of powerful purgatives, and similar measures.

To collate statistics requires only time and care—to draw just inferences from them is quite another thing. So much depends on the bias of the mind; prejudice, of which we may be totally unconscious, so easily creeps in to warp our judgment. It is so very natural as well as consolatory to think our remedy has cured, when perhaps the patient has simply survived both treatment and disease.

It is well to bear this in mind, in analyzing and comparing statistics. In referring to the reported cases of Drs. Collins, Huston, Merriman, Dewees and Meigs, we find that, on an average, only four fifths recover after bleeding, purgatives, &c. The six cases reported by Dr. Salter prove that they have all recovered without bleeding, and with stramonium. The seven cases that have formed the subject of this report show that an equally successful result may be obtained without the use of either—the entire treatment of the disease being based on the maxim, *Natura ducet*.

TABULAR STATEMENT OF CASES.

Case.	Primipara.	Multipara.	Before delivery.	After delivery.	Before and after.	Continuance of convulsions.	Duration of labor.	Male child.	Female child.	Stillborn.	Fatal.
I.		1		1		36	10		1		
II.	1				1	24	16		1	1	
III.		1	1			4	8	1			
IV.	1				1	36	18		1		
V.		1		1		1	12	1			
VI.	1				1	42	28	1		1	
VII.		1	1			6	8	1			
Total.	3	4	2	2	3			4	3	2	None.

NOTE.—Dr. Ramsbotham's report of 26 cases shows the still larger fatality of 10 deaths, or 1 in 2½.

OVARIAN DROPSY—ACUTE DYSENTERY.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—Your JOURNAL for to-day (Nov. 22d), brings us a report from Dr. JACKSON, of a case of ovarian dropsy in a girl of 15 years. In Oct. 1855, I was called to a similar case. The patient was, I think, only 16, and reported the enlargement of the abdomen to have commenced three years before. She had felt well for more than two years after its commencement, but at this time complained of a tired sensation. The catamenia had never been regular—had occurred a few times about the period of the commencement of the abdominal enlargement, but had been entirely suppressed for some two years. She was of small stature, and presented much the appearance of being at the full term of pregnancy. I did not measure the circumference of the abdomen.

Under the use of iodide of potassium and iron, with alterative cathartics, her general health and strength greatly improved. Only slight and temporary effect was produced upon her size.

She was under treatment more or less until August, 1856, when she was tapped, and 18 1-2 pounds of perfectly pure serum were drawn off. I then applied an abundance of compresses over the abdomen, secured in place by a towel drawn tightly around the body. No fainting occurred. She lay quietly in bed forty-eight hours. I then removed the band and compresses. The anterior walls of the abdomen seemed to rest directly upon the posterior. The aorta, spine and kidneys could be clearly felt; but the stomach and intestines appeared to be entirely wanting. I re-applied the compresses and band, kept her in bed one week, then let her get up more and more each day. She recovered rapidly. The catamenia appeared after a few months, and she has as yet had no return of the disease.

Dr. Jackson also reports a case of *acute* dysentery relieved by a saline cathartic. This reminds me to say what I have often thought of saying, viz., that I am certain that cathartics are not enough, and opiates too much given in this disease. I mean in the acute form.

In the year 1838, I had a severe case of acute dysentery in the person of a sailor, on board a merchant ship in the Gulf of Siam. I used opiates freely, and used calomel also, as recommended by Dr. James Johnson. My patient grew worse and worse, and it became certain that he would die under that course of treatment. I then resolved to make use of Dr. Twining's method, as given in his work on Diseases of India. Accordingly, early in the morning, I gave pulv. jalapæ comp., \mathfrak{z} ijss. It operated well, producing copious watery dejections, with great relief of the pain and fever. In the after part of the day, I gave ten grains of Dover's powder every four hours, to be followed the next morning by the pulv. jalapæ comp. in full dose. Under this treatment my patient rapidly recovered.

Since that time, I have always given cathartics freely in the *acute* forms of this disease, and with the most satisfactory results. Where there is reason to apprehend typhoid fever, it is necessary to proceed with caution, it is true, but still, give one or two cathartics at least. After this we must be governed by the developments of the case.

I have known many cases cured by one or two doses of Epsom salts. The pulv. jalapæ comp. in full doses, alternating with pulv. ipecac. et opii, as above, is often an excellent course of treatment. Ipecacuaha is an excellent remedy in these cases. The pill recommended by Dr. James Johnson, for "chronic biliary derangement," viz., Ext. colocynth comp. pulv., \mathfrak{z} i.; calomel, grs. xv.; tart. antim., grs. iv.; ol. carui, gtts. v.; aqua, q. s. M. Ft. pil. xxiv., is another favorite remedy with me, whenever there is a distinctly bitter taste in the mouth, or other evidence of biliary obstruction or derangement with the dysentery. I give from one to three of these pills every four hours till they operate.

After one or two doses of these pills, the other and more hydragogue cathartics do better usually; always alternating the cathartics with small doses of ipecac in some form, and most usually in the combination above named; but keep up the cathartics every day or every other day, till a careful observation of their operation shows that they should be discontinued. The presumption is that they should be continued till the tongue is clean, the fever gone, and the dysentery cured.

Acute dysentery is not often a local disease, but a local symptom of a constitutional or general disease. I think it is not unfrequently an effort of nature to relieve an obstruction of the portal circulation. In all such cases the pill above mentioned operates like a charm. It will also do the same, when an acute attack

of piles is brought on, as is not unfrequently the case, by a like obstruction in the circulation.

Yours, &c.,

STEPHEN TRACY, M.D.

Andover, Nov. 22d, 1860.

ON FERMENTED AND AERATED BREAD, AND THEIR COMPARATIVE DIETETIC VALUE.

BY J. DAUGLISH, M.D.*

SINCE the new process of preparing bread has been introduced, —a process which effects the raising of bread wholly by mechanical means, imparting to it the most perfect vesicular structure, while it leaves the constituents of the flour wholly unchanged and uncon-

* As most of our readers are doubtless aware, Dr. Dauglish is the author of a new system of bread making that has excited considerable interest among chemists during the last twelvemonth.

An extended description of this method was read at the Aberdeen meeting of the British Association, in September, 1859, by Dr. Odling, from whose paper we take the following extracts:—

“It is well known that the vesicular character of ordinary bread results from the development of carbonic acid gas uniformly throughout a mass of fermenting dough, whereby a loose spongy texture is imparted to what would otherwise be a dense sodden lump of baked flour and water. In fermented bread the carbonic gas thus generated within the substance of the dough is a product of the transformation or degradation of one of the constituents of the flour, viz., of the starch or sugar.

“In the plan of Dr. Dauglish the carbonic acid is produced independently and superadded to the flour, which consequently need not undergo any degradation whatever. Water charged with carbonic acid (common ‘soda water’) is mixed under pressure with the flour, and the resulting dough, which becomes vesicular when the pressure is removed, is divided into loaves and baked in the ordinary way.

“The advantages claimed for the new process, are, 1st. Its cleanliness. Instead of the dough being mixed with naked arms or feet, the bread, from the wetting of the flour to the completion of the baking, is not, and scarcely can be, touched by any one. 2d. Its rapidity. An hour and a half serves for the entire conversion of a sack of flour into baked loaves, whereas, in the ordinary process, four or five hours are occupied in the formation of the sponge, and a further time for the kneading, raising and baking of the dough. 3d. Its preventing deterioration of the flour. In making fermented bread from certain varieties of flour, not in themselves unwholesome, the prolonged action of warmth and moisture induces a change of the starchy matter of the flour into dextrine, whereby the bread becomes sodden and dark colored. This change is usually prevented by the addition of alum, which is, indeed, an almost necessary ingredient in the manufacture of bread from glucogenic flour. But in operating by the new process, there is no time for glucogenic change to take place, and consequently no advantage in the use of alum, with any description of flour. 4th. Its certainty and uniformity. Owing to differences in the character and rapidity of the fermentation, dependent on variations of temperature, quality of the yeast, &c., the manufacture of fermented bread frequently presents certain vagaries and irregularities from which the new process is entirely free. 5th. The character of the bread. Chemical analysis shows that the flour has undergone less deterioration in bread made by the new, than in that made by the fermented process. In other words, the percentage of extractive matters is smaller. The new bread has been tried dietetically at Guy’s Hospital, and by many London physicians, and has been highly approved of. It is well known that for some years past, the use of fermented bread in dyspeptic cases has been objected to by members of the medical profession, the debris of the yeast being considered unwholesome and liable to induce acidity. 6th. Its economy. The cost of carbonic acid is alleged to be less than the cost of yeast. Moreover, in making fermented bread there is a small but necessary waste of the saccharine constituents, which is avoided by the new process. 7th. The saving of labor and health. It substitutes

taminated—there has not been wanting those who doubt whether the process of fermentation, by which bread has been hitherto prepared, is not really beneficial in other respects than that of imparting the vesicular structure to it; whether, in fact, the changes which the constituents of the flour—especially the starch—undergo, are not essential to healthy digestion in the stomach.

Although I believe there are few members of the medical profession who will be prepared to maintain that fermentation is beneficial, still, as some do hold such an opinion, and have asserted likewise that starch which has not undergone the fermentive process is wholly unfit for human food, I am desirous of stating what I believe are good reasons for rejecting the process of fermentation for the new one which I have introduced.

In order to dispose of the assertion that starch requires to be prepared by the fermentive changes to render it fit for human food, it is but necessary to remark, that the proportion which the inhabitants of the earth, who thus prepare their starchy food, bear to those who do not, is quite insignificant. Indeed, it would appear that the practice of fermenting the flour or meal of the cereal grains is followed chiefly by those nations who use a mixed animal and vegetable diet, while those who are fed wholly on the products of the vegetable kingdom reject the process of fermentation entirely. Thus, the millions of India and China, who feed chiefly on rice, take it for the most part simply boiled; and that large portion of the human race who feed on maize, prepare it in many ways, but they never ferment it. The same is true with the potato-eater of Ireland, and the oatmeal-eater of Scotland. Nor do we find that even wheat is always subjected to fermentation; but the peculiar physical properties of this grain appear to have tasked man's ingenuity more than any other, to devise methods of preparing from it food which shall be both palatable and digestible. In the less civilized states, a favorite mode of dressing wheat grain has been, by first roasting and then grinding it. On the borders of the Mediterranean it is prepared in the form of maccaroni and vermicelli, while in the East it is made into hard thin cakes for the more delicate, and for the hard working and robust into thicker and more dense masses of baked flour and water. Even in our nurseries wheaten flour is baked before it is prepared with milk for infants' food. The necessity of subjecting wheaten grain to these manipulations arises from its richness in gluten, and from the peculiar properties of that gluten.

machine labor for manual labor of a very exhausting kind. The sanitary condition of journeymen bakers was investigated some time ago by Dr. Guy, and found to be most lamentable, from their constant night work and from the fatiguing and unwholesome character of their labor, particularly the kneading. In a politico-economical point of view, the process is important as removing bread-making from a domestic manual work to a manufacturing, machine work."

From the character of the apparatus, the process can only be used profitably on a large scale, and not in small bakeries.

F. H. S.

If a few wheaten grains are taken whole and thoroughly masticated, the starchy portion will be easily separated, mixed with the saliva and swallowed, whilst nearly the whole of the gluten will remain in the mouth in the form of a tough tenacious pellet, on which scarcely any impression can be made. A similar state of things will follow the mastication of flour. In this condition, the gluten is extremely indigestible, since it cannot be penetrated by the digestive solvents, and they can only act upon its small external surface; hence the necessity to prepare food from wheat in such a manner as shall counteract this tendency to cohere and form tenacious masses. This is the object of baking the grain and flour as before mentioned, of making it into maccaroni, and of raising it into soft spongy bread; by which latter means the gluten assumes a form somewhat analogous to the texture of the lungs, so that an enormous surface is secured for the action of the digestive juices; and this I believe is the sole object to be sought in the preparation of bread from wheaten flour.

Wheat is said to be the type of adult human food. It supplies, in just proportions, every element essential to the perfect nutrition of the human organism. And yet in practice we find that the food which we prepare from it, and furnish to the inhabitants of our large towns and cities, is quite incapable alone of sustaining the health and strength of any individual. This is the more remarkable, since in Scotland we find that the food prepared from the oat, a grain possessing the same elements of nutrition as wheat, though in a coarser form—furnishes almost the exclusive diet of a very large number of the hardiest and finest portion of the population.

In the large towns of France, wheaten bread certainly forms a very large proportion of the diet of the laboring classes, but not so large as oatmeal does in Scotland. And yet it has been remarked by contractors for public works on the Continent, that the chief reason why the Englishman is capable of accomplishing double the work of a Frenchman is, that the one consumes a very large proportion of meat, while the diet of the other is chiefly bread. In Scotland, however, the laboring man is capable of sustaining immense fatigue upon the nourishment afforded by oatmeal porridge.

The deficiency in wheaten bread in affording the nourishment due to the constituents of the grain, is to be attributed solely to the mode of preparing the flour, and the process followed for making that flour into porous bread.

The great object sought after both by the miller and the baker, is the production of a white and light loaf. Experience has taught the miller that the flour which makes the whitest loaf is obtained from the centre of the grain; but that the flour which is the most economical, and contains the largest portion of sound gluten, is that which is obtained from the external portion of the grain. But while he endeavors to secure both these portions for his flour,

he takes the greatest care to avoid as much as possible, by fine dressing, &c.. the mixture with them of any part of the true external coat which forms the bran, knowing that it will cause a most serious deficiency in the color of the bread after fermentation.

It is generally supposed that the dark color of brown bread—that is, of bread made from the whole wheaten meal—is attributable to the colored particles of the husk or outer covering of the grain. But such is not really the case. The colored particles of the bran are of themselves only capable of imparting a somewhat orange color to bread, which is shown to be the fact when whole wheaten meal is made into bread by a process where no fermentation or any chemical changes whatever are allowed to take place. Some few years since, a process was invented in America for removing the outer seed coat of the wheat grain without injuring the grain itself, by which it was proposed to save that highly nutritious portion which is torn away, adhering to the bran in the ordinary process of grinding, and lost to human consumption. The invention was brought under the notice of the French Emperor, who caused some experiments to be made in one of the government bakeries to test its value. The experiments were perfectly satisfactory so far as the making of an extra quantity of white flour was concerned, but when this flour was subjected to the ordinary process of fermentation and made into bread, much to the astonishment of the parties conducting the experiments, and of the inventor himself, the bread was brown instead of white. The consequence, of course, has been that the invention has never been brought into practical operation.

It has been estimated that as much as ten or twelve per cent. of nutritious matter is separated adhering to the bran, which is torn away in the process of grinding, and until very lately this matter has been considered by chemists to be gluten. It has, however, been shown by M. Mège Mourès to be chiefly a vegetable ferment, or metamorphic nitrogenous body, which he has named *Cerealine*, and another body, vegetable *Caseine*.

Cerealine is soluble in water, and insoluble in alcohol. It may be obtained by washing bran, as procured from the miller, with cold water, in which it dissolves, and it may be precipitated from the aqueous solution by means of alcohol; but, like pepsin, when thus precipitated it loses its activity as a solvent or ferment.

In its native state or in aqueous solution, it acts as the most energetic ferment on starch, dextrine, and glucose, producing the lactic and even the butyric changes, but not the alcoholic.

It acts remarkably on gluten, especially when in presence of starch, dextrine or glucose. The gluten is slightly decomposed at first, giving ammonia, a brown matter, and another production which causes the lactic acid change to take place in the starch and glucose. The lactic acid thus produced immediately combines its

activity with that of the cerealin, and the gluten is rapidly reduced to solution.

The activity of the cerealin is destroyed at a temperature of 140° Fah., according to M. Mouriès, but my own experiments show that it is simply suspended even by the heat required to cook bread thoroughly; thus bread made without fermentation, of whole wheaten meal, or of flour in which there is a large proportion of cerealin, will, if kept at a temperature of about 75° to 85° Fah., pass rapidly into a state of solution, if the smallest exciting cause be present, such as ptyaline or pepsin, or even that small amount of organic matter which is found in impure water—while the same material, when it has been subjected to the alcoholic fermentation, will not be affected in a like manner.

The activity of cerealin is very easily destroyed by most acids, also by the presence of alum; and while it is the most active agent known in producing the earlier changes in the constituents of the flour, it cannot produce the alcoholic, but as soon as the alcoholic is superinduced, the cerealin becomes neutralized and ceases to act any longer as a solvent. M. Mouriès, taking advantage of this effect of alcoholic fermentation, has adopted a process by which he is enabled to separate from the bran all the cerealin and caseine which are attached to it. He subjects the bran to active alcoholic fermentation, which neutralizes the activity of the cerealin, and at the same time separates the nutritious matter; and then having strained this through a fine sieve, he adds it to the white flour in the preparation of white bread, by which an economy of ten per cent. is effected, and the color of the bread is not injured.

The peculiar action of cerealin as a special digestive solvent of the constituents of the flour—gluten and starch—has been practically tested by Mr. Stephen Darby, of Leadenhall street, in a series of careful experiments. He found that when two grains of dry cerealin were added to 500 grains of white flour, and the whole digested in half an ounce of water at a temperature of 90° for several hours, ten per cent. more of the gluten, and about five per cent. more of the starch, were dissolved than when the same quantity of flour was subjected to digestion without the addition of cerealin, but in which of course there was a small amount of cerealin that is present in all flours. The action of cerealin upon the gluten of wheat is precisely similar to that of pepsin on the fibrine of meat. Pepsin, acting alone on fibrine dissolves it, but very slowly; but if lactic acid be added, solution takes place very rapidly. In like manner the starch present with the gluten of wheat is acted upon by the cerealin, and produces the necessary lactic acid to assist in the solution of the gluten by cerealin.

With the knowledge thus obtained of the properties of this substance cerealin, it is not difficult to understand why the administration of bran-tea with the food of badly-nourished children, pro-

duces the remarkable results attributed to it by men both experienced and eminent in the medical profession; and why, also, bread made from whole wheaten meal, which contains all the cerealin of the grain, should prove so beneficial in some forms of mal-assimilation, notwithstanding the presence of the peculiarly indigestible and irritating substance forming the outer covering of the grain.

It will be seen that in all the methods of bread-making hitherto adopted, the peculiar solvent properties of this body, cerealin, have been sought to be neutralized simply because it destroys the white color of the bread during the early stages of panary fermentation. It is by thus destroying the activity of the special digestive ferment which Nature has supplied for the due assimilation by the economy of the constituents of the wheaten grain, that wheaten bread is rendered incapable of affording that sustenance to the laboring man which the Scotchman obtains from his oatmeal porridge. Although the new bread has been as yet but little more than experimentally introduced to public consumption, I have already received from members of my own profession, who have recommended it in their practice, as well as from non-professional persons, accounts of the really astonishing results that have followed its use in cases of deranged digestion and assimilation. Private gentlemen have sought interviews with me to record the history of their recovery to health, after years of suffering and misery, by the simple use of the bread as a diet. Children that have been liable to convulsive attacks from an irritable condition of the alimentary canal and nervous system, have been perfectly free from them immediately the new bread was substituted for fermented bread. And cases are now numerous that have been communicated to me by medical men of position, in which certain distressing forms of dyspepsia, which had remained intractable under every kind of treatment, have yielded as if by magic almost immediately after adopting the use of the aërated bread.

The delicate flavor of the new bread renders it peculiarly grateful to the stomachs of invalids and children, as well as of those whose tastes have not become vitiated by the habitual use of baker's bread, which is slightly sour, and tastes of yeast. The new bread was supplied to two wards in Guy's Hospital in place of the ordinary bread (which is of a very fine quality, made on the premises,) for two months, and in no case were there any pieces left in the wards unconsumed, while of the fermented bread large quantities of scraps were collected daily, for the consumption of which the appetites of the patients have been deficient.

That persons who have been long used to the strong yeasty-flavored bakers' bread should consider the new bread tasteless at first is not to be wondered at, since the delicate sense of taste is of all other senses the most easily lost by rough usage. Hence

the argument put forth in defence of adulteration by some London tradesmen, especially the beer-sellers, that the public will not buy the pure article, as it is wanting in the flavor to which they have been accustomed; and hence, also, the dislike of the Viennese of the fresh oysters supplied to them when the railway was completed, as they deemed them insipid, after the habitual use of oysters slightly decomposed, with which they had been supplied when it required a lengthened period to transport them from the sea.

I am disposed to attribute the beneficial effects of the new bread to two causes. The one to the *absence* of the prejudicial matters imparted to ordinary bread by the process of fermentation, and the other to the *presence* in the bread, unchanged, of that most essential agent of digestion and assimilation, cerealin.

I believe the prejudicial matters imparted to bread by fermentation to be chiefly two—acetic acid and the yeast-plant. The first is produced in large quantities, especially in hot weather, by the oxydation, by atmospheric contact, of the alcohol produced. The second is added when the baker forms his sponge, and is also rapidly propagated during the alcoholic fermentation, and cannot of course be afterwards separated from the other materials in the manner that the yeast and the other *débris* of fermentation separate themselves from wine and beer by precipitation in the process of fining. Nor is the life of the yeast-plant generally destroyed in baking, because it requires to be retained at the boiling point for some time before it is thoroughly destroyed, and bread is generally withdrawn from the oven, for economical reasons, even before the centre of the loaf has reached the temperature of 212° . It is not difficult to understand how the most painful and distressing symptoms and derangements may follow the use of bread in which the yeast-plant is not thoroughly destroyed previous to ingestion, and in those cases of impaired function in which the peculiar antiseptic influence of the stomachal secretions is deficient, and is incapable of preventing the development of the yeast-plant in the stomach, and the setting up of the alcoholic fermentation to derange the whole process of digestion and assimilation.

The presence of cerealin in bread is as beneficial as that of acetic acid and the yeast-plant is prejudicial. Digestion, or the reduction of food, is evidently essentially dependent on the action of a class of substances which chemists, for want of a better term, have called ferments—to these substances belong pepsin, ptyaline, emulsion, diastase and cerealin; these are evidently types of a very numerous class, which act by producing those molecular changes in organic substances in which digestion consists: and since the purpose of digestion or solution is to prepare from heterogeneous substances taken as food a chyle, which shall not only, when absorbed, present all the elements of healthy

blood, but shall, previous to absorption, possess the properties which will constitute it the proper stimulus to the functional activity of the lacteals, it would appear to be necessary that each distinct substance taken as food should be furnished, not with its simple chemical solvent, but with that peculiar form of solvent or ferment which alone can carry it through those molecular changes which shall terminate in the production of healthy chyle. Hence we should infer that a substance was digestible or indigestible just in proportion to the provision that is made for its reduction to the standard of healthy chyle, and that substances which have hitherto been incapable of affording any nutrition whatever, may at some future day be rendered highly nutritious, simply by adding to them suitable ferments, artificially obtained or otherwise, that shall secure their passage through the proper molecular changes. Indeed, I think this subject opens up to us that very wide field of inquiry, as to whether the cause and prevention of disease, and the beneficial administration of remedies, may not, for the most part, if not entirely, be dependent on the action of substances analogous to such bodies as ptyaline, pepsin, cerealin, &c., acting in concord with, or retarding and opposing the vital functions of tissues; and that by more profound inquiry in this field of research, the physiologist and the pathologist may not at a future day lay the foundation of true scientific Medicine.—*London Medical Times and Gazette.*

Bibliographical Notices.

Leidy's Elementary Treatise on Human Anatomy.—(Correction.)

IN a late number of this JOURNAL (Nov. 8th) some mis-statements were made with regard to Wilson's System of Anatomy. The error arose from our having consulted only the older edition (1854) of the work. The edition of 1859 contains 146 more plates, and 43 more pages, of a closer type, than the earlier ones; making, in all, an octavo volume of 598 pages, with 397 illustrations.

The preface states that it contains one fourth more matter, and we have no doubt this is the truth. The work has been revised by the author; many parts—as the Origin of Muscles—re-written; much added incidentally, in the text, on new microscopic and other relations; and a new introduction on the Elements prepared, by the present editor, Dr. Gobrecht.

To specify briefly some of the more important additions in illustration. On Osteology, we have new plates of the lacunæ, the periosteum, the epiphyses, the spinal column, and the growth and development of the *os innominatum*, and of teeth. The costo-sternal articulations; the ocular fascia; the muscles of the nose and perinæum; the spermatic canal; the saphenous opening; the valves of veins, and the course of the internal saphenous, are freshly represented. There are several new cuts on the encephalon, and the eye and ear; the gan-

glia of the sympathetic; the mediastina; the supra-renal capsules; the kidneys; erectile tissue, and the uterus. As a rule, the new illustrations relate more to histology. The wood engraving is a little superior to that of the old edition, but is inferior to the English one.

Wilson pursues the same arrangement as formerly. The text on particular bones, as the temporal, for instance, is the same; the veins also seem identical in description, with other editions, except that their intimate structure is treated of at greater length. The whole nervous system is little, if at all, altered. Some muscles—as the pectoral—are better described than formerly; and obviously, many of them are re-written. The muscular fibres of the uterus, and the microscopic anatomy and appearance of the spleen and supra-renal bodies, are new. Much has been added on the mucous glands of the mouth and pharynx, the epithelia of the alimentary tract, and the intestinal glands. In fact, these form almost a new chapter by themselves. The typography and paper are equal to the former editions. Thus this standard text-book of our schools, it will be seen, has been brought up to the times, enlarged, and every way improved.

D. W. C.

Ophthalmic Hospital Reports.

THE eleventh No. of the Ophthalmic Hospital Reports, published in London, under the auspices of the surgeons of the Royal London Ophthalmic Hospital, fully sustains the very high character of the previous numbers. The articles comprised in it are remarkable for originality and clear good sense, and several of them are of rare value.

The editor, Mr. Streatfeild, himself contributes some of the most interesting papers, all of them showing accuracy of observation and novel and skilful applications of ingenious methods of overcoming difficulties and attaining brilliant results, in what would have been regarded, not twenty years since, as hopeless cases. His explanations of his operation for "Corelysis," or "pupil opening," in cases of partial or complete occlusion of the pupil, by division of the adhesions connecting its edge with the cornea, the iris, or with false membranes, and the statement of the results obtained, are very satisfactory. The staff of the Hospital are to be congratulated on having such a representative in the editorial field, and, on the other hand, Mr. Streatfeild may be felicitated on the fellowship of such coadjutors as those who share with him the honor of contributing to fill the pages of the journal which he conducts with so much talent.

So great an impulse has been given to ophthalmic surgery by the invention, within a brief period, of improved instruments, and ingenious modifications of operative measures, and by the application of the ophthalmoscope to the study of the formerly hidden and obscure diseases of the deeper parts of the eye, that the publications relating to this branch of our art show as marked an advance over those of only a quarter of a century ago, as do the treatises on physiology compared with works published before the discovery of the circulation of the blood.

Such a journal, embodying everything which may increase our knowledge of ophthalmic affections, is much needed, and should be extensively patronized and read.

W.

Memoranda Medica, or Note Book of Medical Principles. By HENRY HARTSHORNE, A.M., M.D., Prof. of Theory and Practice of Medicine in the Medical Department of Pennsylvania College, &c. Philadelphia: J. B. Lippincott & Co. 1860.

NOTHING is of more value to the student or practitioner than a correct idea of what he is to look for in the investigation of disease. But few symptoms are pathognomonic. Their meaning generally lies in their connection, and is therefore to be ascertained only by considering all the circumstances under which they may occur. But few are such masters of their profession that they always have at their command the materials for forming a correct diagnosis by exclusion; for, to do this satisfactorily, implies the most accurate knowledge of all branches of medicine. A work, therefore, which enables us at a glance to comprehend the extent and character of the field in which we are to labor, is of very great assistance, and such a work we appear to have before us. It is divided into five parts:—Etiology, Semeiology, General Pathology, Nosology, and General Therapeutics. Further than this we cannot analyze the book, for it is, itself, the closest possible analysis. Intended merely to point the way, it contains no more information than is necessary for that purpose, and this is its great merit. We can most sincerely recommend a work which does well what it pretends to do. A complete glossary at the end of the volume gives it additional value, and all these advantages are presented in excellent print, upon excellent paper.

Compendium of Human Histology. By C. MOREL, Prof. agrégé à la Faculté de Médecine de Strasbourg. Illustrated by twenty-eight plates. Translated and Edited by W. H. VAN BUREN, M.D., Prof. of General and Descriptive Anatomy in the University of New York, &c. &c. New York: Baillière Brothers, 440 Broadway.

THE editor states that he has "prepared M. Morel's *Compendium of Histology* for the use of the American Medical Student, in consequence of the excellence and fidelity of its plates, and the clear and concise manner in which all that is positively known of the science, up to the present moment, is set forth in the text."

These certainly are excellent reasons for undertaking the labor of preparing the work, and an examination of the latter shows that they are the true ones.

It is the best compendious treatise we have seen. The plates are admirable, some of them illustrating most beautifully the views of Virchow upon the office of the cell in the formation of tissues, both normal and pathological.

This doctrine, as advocated by the Berlin Professor, is so beautiful, so satisfactory, and apparently so true, that it cannot be too much insisted upon, and we are glad to see such notice taken of it here. Throughout the work there is evidence that brevity is not the result of haste, but of a most careful selection of important points, by one thoroughly acquainted with the whole subject.

The Pocket Anatomist for the use of Students. By M. W. HILLS, formerly Lecturer on Anatomy and Physiology at the Westminster Hospital School of Medicine. Philad.: Lindsay & Blakiston. 1860.

THIS little re-print of an English book, contains what such works

usually do, a condensed description of those parts of the body, with which it is most important that students should be conversant. It will undoubtedly be of assistance to those who have labored through larger treatises, which are perhaps encumbered by details that obscure the most important points.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 6, 1860.

OBITUARY NOTICE OF HENRY M. DANIEL.—At the Massachusetts General Hospital, on Thursday evening, November 22d, after an illness of seven days, in the 20th year of his age, died, Henry M. Daniel, a student of medicine. He came here a stranger, from Prince Edward's Island, but in a few days he was known to and respected by his teachers and companions for the kindness and gentleness of his demeanor, as well as for his zeal and diligence in the prosecution of his studies. He very early manifested a taste for the profession to the pursuit of which he had been devoting his energies for nearly two years. His natural gifts and acquirements, his love for patient labor, were such as to give to his friends confident hopes of his future success. His parents parted with him only one month ago, reluctantly, as he was convalescent from an attack of typhoid fever, yielding to his earnest desire to be present at the opening of the winter course of lectures in this city. They had heard from him only once, when they were informed, by telegraph, of his severe illness. Arriving in Boston, after a long and toilsome journey, at an inclement season of the year, the father was told that this his first-born son had been dead already five days. The bitter disappointment and the grief attendant upon the announcement of such tidings can be appreciated only by parents, but must be respected by all.

We are told of Archbishop Leighton, that he used often to say, that if he were to choose a place to die in, it should be an Inn, it looking so like a pilgrim's going home, to whom this world was all as an Inn; and that being away from the tenderness and care of friends was not altogether to be lamented, as thus a dying man would be more free to make his preparations. This wish was granted. It was a comfort to the bereaved father, in this case, to learn that his own efforts to train his child in the way that leadeth to eternal life, and to impart that knowledge on earth which is necessary for a denizen of heaven, had not been in vain. The sudden and painful illness, too severe for new lessons or new habits, the absence of father and mother, brother and sister, the guides and friends of early youth, did not interfere with an earnest search for and prayer to that Friend who is ever near and ready to help all who call upon Him. The young man's strength, which may have been his glory, was fast leaving him; but it was sufficient for an earnest supplication for pardon, for an avowal of unworthiness of the least of God's mercies, and at the same time of an assured hope and a well-grounded trust in Him who died for his sins and rose again for his justification, fully warranting the clergyman

summoned in the last hours to administer that rite of religion so appropriate to one leaving this world for another.

The members of the School, professors and students, joined with the father in the religious services at the Hospital, and in following the remains to their resting place. Whilst, as journalists, charged with recording events and deducing lessons, we would express ourselves for the departed in those three Latin words so full of meaning—"requiescat in pace"; whilst we would assure the sorrowing friends at a distance of our interest and sympathy, we will hope for ourselves that this young stranger may not have come amongst us to fall a victim to exposures and labors, not to be avoided by those who would perfect themselves in a knowledge of the art of healing, without having enabled us to learn something of the privileges and duties of hospitality; nor without a warning of the habitual diligence necessary, if we would be ready to receive a summons which we so often see given to others, and for which on this account we may so easily be unprepared.

ST. LUKE'S HOSPITAL, NEW YORK.—From the Annual Report of this Institution, we learn that during the past year, there have been treated in this hospital 468 patients; males, 232; females, 236. Of the entire number, 54 have been children; surgical, 167; medical, 301. There were 53 patients in the wards at the commencement of the year; 328 have been discharged during its course, and 85 are now in the wards. There have been 59 deaths and 4 casualties. Twenty-one surgical operations have been performed, eight of them capital. The results of these have been successful, except in one instance, a case of hernia in an old subject, where strangulation had existed for thirty-six hours prior to admission to the hospital. A large number of persons, suffering from recent injuries, have been received from the hands of the police, including twenty-two cases of fracture. In the medical wards there has been a very decided increase during the past year in the proportion of acute cases, though, as heretofore, those of a chronic character predominate. The ward devoted to the treatment of children, is a new and most important feature of the hospital. The necessity for such a department is amply shown by the fact, that it has been more rapidly and more constantly filled than any other in the house. The bill of mortality for the past year shows a reduction of over five per cent. from that of the previous year.

NAVAL HYGIENE IN FRANCE.—A Chair of Hygiene has just been founded in the Naval Medical School of Toulon, the first occupant being M. Roux, Surgeon-in-chief of the Imperial Navy. Now that a Military Medical School has been established at Chatham, the next question will be whether we shall go on imitating our neighbors, and think of the formation of a *Naval Medical School*. There would be nothing strange in this, seeing that England is the first maritime power of the world.—*London Lancet*.

HEALTH OF NEW ORLEANS.—As we predicted, New Orleans has escaped an epidemic of yellow fever this season. From conversations with reliable medical men, we find that there are those who do not believe we have had a genuine case of the disease, while equally reliable men think we have. One thing in favor of the first position is, that we are informed by the worthy House-Surgeon of the

Charity Hospital, that there has been no case of black vomit in the institution. As an humble observer of the history of yellow fever in New Orleans, we find in this simple fact satisfactory proof enough for ourself.—*New Orleans Medical News and Hospital Gazette*.

A NEGRO girl in this county (Washington), of medium stature, and but nineteen years old, was delivered the first of this year of two girls, one weighing 9 3-4 pounds and the other 9 1-4 pounds, both of which are still living, and bear such striking resemblance to each other as to perplex even the mother at times to distinguish them apart. The mother of the girl gave birth to seventeen children—eight of them at four accouchements, and she herself was one of a pair of twins.—*Georgia Medical and Surgical Encyclopedia*.

DENTAL SOCIETY.—A new society has been formed under the name of the Kentucky State Dental Association, W. D. Stone, President. Some few subjects were discussed; members appointed to read essays, and adjourned to re-assemble in Louisville the second Tuesday of April, 1861.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, DECEMBER 1st, 1860.

DEATHS.

	Males.	Females	Total
Deaths during the week,	35	38	73
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	37.3	35.4	72.7
Average corrected to increased population, . . . . .	..	..	80.9
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infan.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
10	2	5	3	0	0	0	4

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	29.946	Highest point of Thermometer,	55°
Highest point of Barometer,	30.570	Lowest point of Thermometer,	15°
Lowest point of Barometer,	29.250	General direction of Wind,	S.W. & N.W
Mean Temperature,	34°.8	Whole am't of Rain in the week	0.760

NOTICE.—Bills will be sent out to subscribers, in the numbers of the JOURNAL for this week and the next, and an early attention to them is respectfully solicited. Money received at the office by mail will be acknowledged by a receipt enclosed in the succeeding issue of the JOURNAL. Any subscriber not receiving his receipt thus enclosed, is particularly requested to notify the publisher at once. On account of the death of the collector (M. D. Hazeltine) who for many years has called annually on certain of our subscribers in New England, their bills have not been presented to them as usual, and are now enclosed in their respective copies of the JOURNAL. No one has yet been authorized to take the place of Mr. H., and it is hoped that those who have formerly paid their subscriptions to him will make it convenient to forward the amount now due, by mail, or by some private conveyance if preferred.

BOOKS RECEIVED.—A Colloquy on the Duties and Elements of a Physician. By Thomas S. Powell, Professor of Obstetrics in the Atlanta (Geo.) Medical College.—Medicine for the Million; An Introductory Lecture by Prof. M. L. Linton, St. Louis, Mo.—The Sixth Registration Report of South Carolina.

MARRIED.—In Cohasset, Nov. 29th, Dr. C. C. Tower, of South Weymouth, to Miss Clara L. Pratt, daughter of Charles Pratt, Esq., of Cohasset.

DIED.—At Lakeville, Nov. 26th, Dr. Moses Emery, aged 66.

Deaths in Boston for the week ending Saturday noon, December 1st, 73. Males, 35—Females, 38.—Accident, 1—anemia, 1—asphyxia, 1—atelectasis pulmonum, 1—congestion of the brain, 1—disease of the brain, 2—bronchitis, 4—burns, 1—cancer (of the stomach), 1—cholera infantum, 2—consumption, 10—convulsions, 1—croup, 4—debility, 1—diarrhoea, 1—diphtheria, 1—puerperal disease, 4—dropsy, 2—dropsy of the brain, 4—erysipelas, 1—remittent fever, 1—scarlet fever, 5—typhoid fever, 4—gastritis, 1—disease of the heart, 3—intemperance, 2—disease of the kidneys, 1—congestion of the lungs, 3—inflammation of the lungs, 3—marasmus, 1—old age, 1—paralysis, 2—premature birth, 1—unknown, 1.

Under 5 years, 41—between 5 and 20 years, 4—between 20 and 40 years, 17—between 40 and 60 years, 6—above 60 years, 5. Born in the United States, 53—Ireland, 12—other places, 3.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXIII. THURSDAY, DECEMBER 13, 1860. No. 20.

STATISTICS OF POISONING IN NEW ENGLAND.

BY CHARLES T. JACKSON, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—It is desirable that statistics of poisoning in this country should be laid before the medical public, in the form of tabular statements. I have therefore ventured to prepare such a table of my own researches in this department of science, for the last quarter of a century, and would request other chemists and medical gentlemen, who have been engaged in similar labors, to publish, in this form, the cases they have examined, with the discovery of poisons.

The whole number of cases recorded in my laboratory notes, in which analysis has been made for poisons, is forty, and of this number in only fourteen was poison actually discovered. It will be observed that the statement in toxicological authorities, that arsenic is by far the most common and frequent instrument of secret poisoning, is sustained by my analyses. Not a single instance of strychnia poisoning has been met with, notwithstanding the fact that it was searched for by Staas's and other approved processes, in nearly all the cases in which I failed to detect mineral poisons.

Phosphorus, in the form of "vermin exterminator," is a new poison, only recently introduced into the list of instruments of murder, and it will be seen that we have had two well-marked cases, where that terrible and inflammable poison, phosphorus, has been criminally employed.

It will be impossible to know whether the crime of poisoning is on the increase or not, until we have before us the statistics giving all the cases that have happened, with their dates. It is certain that suspicion of poisoning has very rapidly increased within a few years, and so far as the present table can be relied upon in forming an opinion, it would appear that the crime is on the increase in this country; but this apparent increase may arise from the fact that *post-*

mortem examinations and chemical analyses are more common now than they were twenty-five years ago. We do not know how many persons who were buried as having died of disease, may have died of poison. We have one case in these tables, that of James Rose, of Charlestown, who was supposed to have died of Asiatic cholera, but after it was discovered that his wife, subsequent to his death, was poisoned by arsenic, his body was exhumed after it had been buried at Mount Auburn for a year, and found actually preserved from decay by arsenic, which was found in large quantities in the stomach and bowels, as well as in the abdominal cavity, in the state of a rich yellow sulphide of arsenic, the sulphur having come from the chemical changes which the stomach and contents underwent after burial.

Tabular List of Cases of Poisoning, from 1837 to 1860, analyzed by CHARLES T. JACKSON, M.D.

No.	Year.	Person poisoned.	Residence.	Analysis ordered by	Poisons found.
1	1837	Mrs. Parkman.	20 miles from Norridgewock, Me.	Supreme Court of Norridgewock, Me.	Arsenic in form of arsenious acid, and opium in large lumps.
2	1839	J. P. Staunton.	Monson, Ms.	Coroner, Justice, and Attorney-General Austin. Brought by Dr. A. Smith.	Arsenious acid in coarse powder and in fine round grains.
3	1840	Mrs. L. Moore.	Boston.	Lucy Moore and the Mayor of Boston.	Arsenic. Case not fatal; attempted poisoning.
4	1850	James Rose.	Charlestown, Ms.	Coroner and Dr. Jacob Hayes.	Sulphide of arsenic abundant; body had lain in the grave a year.
5	1850	Mrs. Rose.	Charlestown, Ms.	Coroner and Dr. Jacob Hayes.	Arsenious acid, or white arsenic.
6	1855	Alonzo Bancroft.	Blackstone, Ms.	Coroner Southgate, of Black stone.	Antimony; accidental or from medicine taken.
7	1855	Phebe A. Morgan.	Boston.	Coroner C. H. Stedman, M.D., per Dr. F. S. Ainsworth.	Chloroform; accidental, at a dentist's office.
8	1857	H. J. Gardner.	Hingham, Ms.	Coroner and Justice Jas. S. Lewis, Esq.	Arsenious acid, or white arsenic.
9	1857	Mrs. L. Briggs.	Stoughton, Ms.	Coroner and Justice Lemuel Gay, Esq.	Arsenious acid, or white arsenic.
10	1858	Dixon Family.	Elliot, Me.	Sheriff or Constable of Elliot.	Arsenious acid, or white arsenic.
11	1858	Poisoned well.	Stoughton, Ms.	Name not taken down at the time.	Arsenic. Attempt to poison; not fatal.
12	1859	Blight child, colored.	East Cambridge.	Coroner Dearborn, thro' Dr. F. S. Ainsworth.	Phosphorus and arsenic—vermin exterminator.
13	1859	Debora O'Connel.	Boston.	Coroner Dr. E. B. Moore.	Phosphorus and arsenic—vermin exterminator.
14	1860	Hannah Grant.	Boston.	Coroner Dr. E. B. Moore.	Arsenic in form of arsenious acid.

Notwithstanding the increased facilities afforded for the commission of the crime of poisoning, by the discovery and general sale of the poisonous vegetable alkaloids, the equal advance of

chemical art, in the department of analysis, affords the means for detection of the crime. Still, I would remark, it must be extremely difficult to induce any one to take in food or drink those intensely bitter and very disagreeable tasting vegetable poisons, and especially strychnia.

Boston, Dec. 3d, 1860.

NOTE.—From 1840 to 1850, I sent all cases of poisoning which were brought to me, to my friend the late Dr. Martin Gay, and have no list by which I can state the number of them, and am not aware that Dr. Gay preserved notes of his work. The number of cases that occurred in those ten years could not have been more than four or five in which poisons were discovered by analysis.

Chemists throughout the New England States are requested to publish, in the above form, a list of the cases in which they have detected poisons by analysis, of stomach, bowels or their contents, in order to complete the statistics of poisoning, in New England, for the past quarter of a century.

C. T. J.

EXCESSIVE USE OF NARCOTICS.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—I notice in your JOURNAL of Nov. 15th, an article by C. S. S., of Sag Harbor, on the excessive use of narcotics. I had a case, the past summer, which, if you think it worthy of publication, is at your disposal.

The patient was Mrs. A. H. S., æt. 42 years. Fifteen years ago, I was the family physician, afterwards having been succeeded by Dr. Mitchell. Up to that time she was considered a healthy woman. A homœopathist came into this place, by the name of Robinson—a very fascinating and jovial fellow—who, becoming acquainted with the family, was employed soon after as their physician. Sickness now began in the family. One child, attacked with erysipelas, soon died. Mrs. S.'s health continued very poor, and the man of small pills informed her that she had neuralgia of the womb, and that for the severe pain which she experienced she must take morphia in doses of one eighth of a grain. This was eight years ago. She took this medicine for four years, the last six months of the time using a drachm in two weeks. She now went Eastward, and, by the advice of physicians in Philadelphia, was induced to abandon it, but not without a severe struggle. She returned to Janesville, with her health improved. Being taken unwell shortly after, she sent for Dr. R. Her husband, who saw him, objected strongly to the further use of morphia; but he persisted, and again prescribed it.

This was in August, 1855. She carried it about her constantly, one drachm lasting her about three weeks. In 1856, she took a

drachm every two weeks; in 1857, a drachm in one week; in 1858, a drachm in from four to six days. In 1859, up to Nov. 25th, when she was confined to her bed, she took from two and a half to three drachms a week. From the 25th of November, 1859, to the 1st of May, 1860, when I first saw her, she was taking from four to six drachms per week. Her nurse told me that she had often given her a teaspoonful of the dry powder three times a day, by order of the homœopathist. A physician, of Chicago, was called to see her in February or March, 1860, and gave it as his opinion that she must die within a short time, as there was no remedy for her.

On the 1st of May, I was called. Had I seen her in any other place, I should not have known her. She was very much emaciated; the skin yellow and shrivelled up; eyes sunken in the head; tongue dry and cracked in places; pulse 110; clammy sweat over the whole surface; respiration hurried; and the patient so nervous that the least movement in the room would make her spring from the bed. It was with great difficulty that she could talk so as to be understood. In the afternoon I called, in company with Dr. Coriell, and, after consulting with him, informed her husband that if he was willing I should treat her in my own way, and if there should be no interference from any quarter, I would undertake the case. Accordingly, on the third day of May, I took charge of the patient, making the following prescription:—R. Hydrargyri submuriatis, grs. iv.; sodæ bicarbonatis, grs. vi. M. Together with 60 drops per hour of the tincture of valerian. During this day she took fifty grains of morphia.

May 4th.—The bowels were moved by an injection. One tablespoonful of serpentaria tea was given every two hours. She took thirty grains of morphia.

Continued the same treatment on the 5th and 6th of May, she taking but forty grains of morphia in the two days. The patient was less nervous, and had some sleep.

7th.—A tablespoonful of lac assafœtida, two ounces to the pint, was taken every hour. The stomach was rubbed with croton oil. Patient took fifteen grains of morphia.

8th.—Very quiet; and had the best night's rest she had had for months. Prescription same as yesterday, except as to amount of morphia, which was ten grains.

From the 9th to the 14th, the same treatment was continued, with the exception of lessening the dose of morphia.

From the 12th to the 14th, the bowels were moved by the assafœtida.

15th.—Discontinued assafœtida and morphia; pulse 80; tongue moist; skin natural; patient sits up in bed; says that the past few months have been as a dream to her. Gave McMunn's elixir of opium, in the dose of twenty drops three times a day.

16th.—Patient rested well all night; bowels were moved without

injection. Ate baked potatoes for breakfast, and relished them. R. Fifty drops of McMunn's elixir during the day.

17th.—Slept well during the night; pulse 70; was dressed and in charge of an attendant; drove in a carriage a few squares, and returned.

She continued to drive every day till the 10th of June, when she commenced walking, and weighed 95 pounds. She uses one bottle of McMunn's elixir in a week.

July 13th.—Started for Philadelphia, and was gone six weeks. On returning home, she met with an accident on the cars at Crest-line, and was badly bruised. Was suffering intensely, but took no opiates whatever to assuage the pain. She has now recovered, and her health is as good as in former days; her weight is 130 pounds.

JOSEPH S. LANE, M.D.

Janesville, Wis., Nov. 28th, 1860.

P. S.—Six weeks previous to my seeing her, she was attended by an "Eclectic" physician, who told her that her condition was due to the "turn of life," and treated her accordingly, at the same time allowing her to keep her drachm of morphia under her pillow to use as she thought best. After she commenced walking, the catamenia appeared, and from that time she rapidly improved.

J. S. L.

TRANSMISSIBILITY OF SYPHILIS BY VACCINATION.

[Communicated for the Boston Medical and Surgical Journal.]

THE results of the labors of M. Alexandre Viennois, in elucidating the obscure subject of the transmissibility of syphilis by vaccination, are summed up in the *Gazette des Hôpitaux* of Sept. 22d, as follows:—

"When we vaccinate a syphilitic subject, in whom the disease is only in a latent state, syphilitic symptoms may break out under the influence of the vaccine virus. These symptoms, noticed in a number of cases, consist in general eruptions, papular, vesicular, pustular, &c. There is never a primitive chancre developed at the point of vaccination.

"When we take vaccine virus from a person tainted with syphilis, and inoculate a healthy subject *with the pure virus*, without any mixture of blood, we get as a result merely a vaccine pustule, without any syphilitic complication, immediate or remote. On the contrary, if with vaccine from a syphilitic subject, affected or not with constitutional symptoms, we vaccinate a healthy subject, and the point of the lancet has been charged with a little *blood* as well as vaccine matter, we may communicate by the same puncture both diseases; the vaccine with the vaccine lymph, and syphilis with the syphilitic blood.

"In these cases, of which M. Viennois has collected in his work numerous instances, the vaccine disease is developed first, because its incubation is shorter, and its evolution more rapid, than those of syphilis; this last appears afterwards, and shows itself at once by a characteristic lesion at the point of inoculation.

"The initial lesion, then, by which syphilis shows itself, succeeding the vaccine pustule, presents itself as an *indurated ulcer*, with a number of inflamed glands—in a word, with all the characters of a primary syphilitic chancre.

"After this primary chancre, developed at the point of inoculation and going through the ordinary stages, secondary symptoms appear and pass through the usual course, without anything to distinguish them from cases of syphilis communicated in any other way.

"The vaccine virus, then, is not a mere vehicle for the syphilitic poison, diluting and extending it as a drop of water might do, without modifying in any respect its properties or its effects.

"These facts being established, and it does not seem possible to doubt them after the scrupulous researches of M. Viennois, it is easy to see how important it is not to lose sight of them for a moment in practice. From them results this imperative precept, *never to vaccinate a suspected person*. M. Viennois, indeed, goes so far, if the subject for vaccination is a new-born infant, as is most commonly the case, that he would postpone, in every instance, vaccination until the period has passed at which hereditary syphilis usually manifests itself. If special circumstances render the vaccination imperative, it is necessary at any rate to take the greatest care to use only pure vaccine, without the least mixture of blood or any other fluid.

"In any case, we should never vaccinate healthy subjects with virus from a syphilitic subject." A.

CASE OF INTRA-UTERINE SMALLPOX.

BY DR. ALEXANDER R. SIMPSON, SECRETARY TO THE EDINBURGH OBSTETRICAL SOCIETY, FORMERLY PRES. OF THE ROYAL MED. SOCIETY.

CASES of intra-uterine smallpox are not so rare but that most of the Fellows of this Society have met with one in their own practice, or have seen them when exhibited here by others. It is but very rarely, however, that we have an opportunity of tracing out the progress of the intra-uterine disease so precisely as I was enabled to do in the case I have now to record.

Mrs. M'L., aged 22, and married for five years, miscarried on Friday, the 1st of July, 1858. She had had six miscarriages previously, and had usually gone to about the seventh month of gestation before the fœtus was expelled. One fœtus only was retained till the eighth month, and lived up to the time of its birth. She was generally in the enjoyment of good health; began to menstru-

ate when only 12 years of age, and menstruated regularly every fortnight. After the occurrence of the miscarriage in the beginning of July, 1858, already referred to, she menstruated once—in the end of the same month; but before the time for the recurrence of another catamenial period had arrived, she had become impregnated; and when I saw the patient for the first time, in the end of October, she presented all the appearance of a person in the third month of utero-gestation. She was then ordered to take ten grains of chlorate of potash three times a day, as all the facts that could be furnished in regard to the repeated miscarriages seemed to point to some atrophic disease of the placenta as the cause of the death of the successive infants. The patient continued to do well until the beginning of February, 1859. On the 7th of that month, I was sent for to see her; and on my arrival, I was told that on the 5th she had been out walking, when she found herself so poorly that she was obliged to hurry home. She had had some shivering fits that same morning, a good deal of sickness, and a feeling of soreness all over the body; and she was then laboring under a high degree of fever, while the skin was covered with a multitude of rough red spots, evidently the commencement of some eruptive disease. On the following day, it became quite clear that the patient had got an attack of modified smallpox. A number of discrete pustules broke out all over the body, most abundantly on the face, hands, and arms. They ran the usual course, and began to fade away after the ninth day; so that, on the 23d of the month, eighteen days from the onset of the disease, the patient was able to walk out of the house.

Up to this time the fetal movements continued active as usual; but a few days afterwards, on the 25th or 26th of the month, they began to be feebler and less frequent. The patient took no heed of this circumstance for a day or two; but having at last become alarmed about it, she came to me. This was on Monday, the 28th of February. I found the sounds of the foetal heart to be then very faint, feeble, and indistinct; but on visiting the patient at her own house on the following Friday (March 4th), I heard them again quite distinct, though less forcible than natural. I did not see her again till the forenoon of the Monday following; and on then listening through the stethoscope over the womb, found that the foetal heart had ceased to beat, or, at least, that its sounds were no longer audible. On the preceding day, the patient had been out walking, when, as she averred, she became rather suddenly sensible of a feeling of weight, or falling down, in the womb, which compelled her speedily to return home. That, in the sensation thus experienced by the patient, we have an indication of the time when the foetus died, it is of course impossible to determine; but there can be but little doubt that the probable date of its death was the 5th or 6th of March. On the 8th, the patient met with an accident; for, while voiding her urine early in the morning, the

utensil on which she was seated broke beneath her, and a number of cuts and scratches were inflicted on the hips and thighs. Fortunately, however, the genital organs were uninjured, and the patient speedily recovered from the effects of her mishap. I did not again see the patient till about two o'clock in the morning of Friday, the 22d of March, when I was summoned to deliver her. She had been suffering more or less from occasional pains, referred to the region of the womb, for two days previously; but the true labor pains had only set in about two hours before I arrived at her bedside, and by that time they had already succeeded in expelling the feet and body of the child. The head was soon delivered, and the placenta and membranes followed in due course.

As had been fully anticipated, the child at birth presented evidences of having been *in utero* the subject of an attack of variola; for a number of pustules, umbilicated in the centre, were found scattered here and there on the back, the head, and the thighs. The cuticle was separated, or easily separable, over a great part of the body, and the foetus altogether was in the state of decay which we always expect to see in the case of a child that has lain for two weeks dead in the maternal womb. The pustules were but few in number, and but sparingly distributed over different parts of the body; and in consequence of the degree to which decomposition had gone on, several of them, as the members of the Society could observe, had fallen out at points where the cuticle was scaled off, and had left only cup-like depressions in the cutis vera. But enough were still left of a character sufficiently distinctive to show that the foetus had suffered from smallpox, and that it had died at that period of the disease when the pustules had existed for seven or eight days—supposing always that the development of variolar pustules follows the same course in an intra-uterine subject that it does in a new-born child. The death of the foetus in this instance, however, was not to be attributed to the attack of smallpox alone, or even to that chiefly. On the contrary, the attack, to judge from the small amount of eruption that had taken place, seems to have been, on the whole, rather a mild one; for the appearance of the pustules indicated the attainment of a stage of the disease too far advanced to allow it to be supposed that the intensity of the fever caused the infant's death before the eruption had time to be developed. It seems probable, indeed, that it would have survived that disease, and it might have been carried to the full time, and have been born alive, had there not been at hand another source of danger in the morbid condition of the placenta. As the members of the Society could perceive, the placenta was unusually small, pale, hard, and fibrous-looking, having undergone a change which has sometimes been described as fibrous degeneration, or cirrhosis of the placenta—a morbid condition of that organ which is well known to be an occasional cause of intra-uterine mortality.

But although the fœtus died, in all probability, of the defective nutrition and impeded oxygenation consequent on the diseased state of its placenta, and not of the attack of smallpox, of which it showed such distinct traces; yet the history of the case is interesting, as showing very exactly the date of the onset of the disease in the fœtus, and the length of time during which the mother suffered before the progeny in her womb became affected. We have, First, the mother attacked with the disease on Saturday, February 5th; the eruption appearing on the 7th, and beginning to fade on the 16th or 17th; and the patient so far recovered as to be able to be out of the house on the 23d of the month. She had fairly recovered, and the eruption had faded away, and left only its yet vascular scars behind, when, Secondly, on the 25th or 26th of the month, twenty or twenty-one days from the time of the commencement of her own attack, she began to miss the fœtal movements; and this marks the date of the onset of the disease in the fœtus. On the 4th of March, six or seven days after the fœtus thus seemed to have become affected, its heart-sounds were still distinct and clear; but on the third day afterwards, they were no longer to be detected. On the seventh or eighth day from the date of the commencement of its disease, the fœtus had died. In short, after the disease had run a course of three weeks' duration in the mother, and had expended itself in her constitution, the fœtus became affected by it, and died on the seventh or eighth day afterwards, although it was not expelled from the uterus till the end of another fortnight.—*Edinburgh Medical Journal.*

NEW SIGN OF POST-PARTUM DETACHMENT OF THE PLACENTA.

BY JOHN CLAY, M.R.C.S., &c., BIRMINGHAM.

THE rules usually given in obstetric manuals, and text books, for the management of the placenta, after the birth of the child, are:—to wait for a pain; or, to carry the finger along the cord to the os uteri, and, if its root can be felt, it may be fairly assumed that the placenta is thrown off, and may be easily extracted by gentle traction of the cord, with the aid of external manipulation. If these instructions be faithfully carried out, can we rely upon the facts elicited as infallible proofs that the placenta is separated from the uterus? Pain may mislead, as it frequently arises from other causes than contractions of the uterus; and even if the insertion of the cord can be felt, it is not always conclusive on this point, as the root of the cord may be sometimes felt when the uterus is in a flaccid condition, by using moderate traction on the cord, and yet the placenta be not thrown off. Besides, the patient often lustily complains of the smarting pains caused by the frequent examinations deemed necessary to ascertain the fact; and often she positively forbids such a mode of interference.

Four years ago I was led, from these causes, to investigate the subject, with the view of improving, if possible, upon the old mode of managing the deliverance of the after-birth. I thus ascertained certain facts, from which I came to the conclusion, that a very simple sign existed by which the separation of the placenta, after the birth of the child, might be indicated; and having tested it in upwards of nine hundred cases, I hope I may be considered to be fairly entitled to lay the results at which I have arrived before the profession.

Before dividing the umbilical cord, I always apply two ligatures, and make both sufficiently tight to prevent the occurrence of hæmorrhage. If the maternal part of the cord is now examined, it will be found to be in a flaccid condition, and almost free from blood; but if it be again examined, at an interval, say from one to three minutes, it will be found to have acquired increased specific weight, and that the vessels are more or less filled with blood. The one fact may be ascertained by poising the cord on the fingers; the other by slightly grasping the cord near the vagina, with the thumb and fore-finger of the left hand, and, with the fingers of the right hand, suddenly compressing it, when a well-marked sense of fluctuation is perceived underneath the fingers of the left hand—a kind of resilience similar to the feeling produced when an elastic tube filled with fluid is suddenly compressed.

When the placenta is thrown off, or sufficiently detached to give rise to a tolerably free hæmorrhage, the cord loses its increased specific weight and the hydrostatic property just mentioned. These phenomena occur so invariably, that *the loss of the previously acquired hydrostatic properties of the cord after the birth of the child constitutes the sign of detachment* previously referred to.

The whole of the phenomena are manifested in three stages, viz.:—1st, a state of flaccidity; 2d, a state of repletion; 3d, a state of flaccidity.

If the umbilical cord be tightly grasped by a spasmodic contraction of the os uteri, or by irregular contractions of the body of this organ, the *loss* of the particular hydrostatic properties may be delayed for a brief interval; but in a few seconds the spasm subsides, and those phenomena are produced which indicate the separation of the placenta, and that this structure may be safely extracted. These signs are not, of course, always equally marked in every case—often requiring experienced tactile management, in order to detect their presence. When the uterus is in a flaccid condition, the phenomena are manifested in a very slight degree, but are still perfectly reliable. On the other hand, when the uterus is contracted, with some degree of firmness, on the placenta, they are so well marked that the most inexperienced may readily detect them. In cases of partially adherent placenta, the disappearance of the hydrostatic properties, after being once fully developed, and the failure to deliver the placenta by the usual mani-

pulations, have always indicated to me the necessity for promptly adopting artificial detachment by the introduction of the hand. In twin cases, if the cord is firmly tied, I have invariably found that the signs persisted until the birth of the second child. In one case, where the hydrostatic properties disappeared, after being well marked, before the birth of the second child, I found, on examination, that the corresponding placenta was detached, and I at once removed it, which otherwise would probably have been suffered to remain. Neither mother nor child incurred any risk.

It sometimes occurs that the placenta is separated simultaneously with the birth of the child. In this instance, the first series of phenomena may be absent; and it may be prudent to wait before proceeding to extract the placenta, although it may be generally effected with safety.

The practical value of the application of these facts to obstetrics is obvious, as by merely compressing the cord in the manner previously indicated, the precise time of separation may be easily ascertained, the placenta at once extracted, and the patients thus freed from those frequent annoying examinations usually employed. The prompt delivery of the placenta, on the first efforts of the uterus, is very important, as this organ contracts then more efficiently, and the risk of hæmorrhage is not so great, and it may be fairly assumed that the puerperal convalescence is not so protracted as under a more dilatory proceeding.

To students, or inexperienced practitioners, it might be a safe instruction to impart—not to interfere in the extraction of the placenta so long as the hydrostatic properties herein defined are persistent.—*Dublin Quarterly Journal of Medical Science.*

Bibliographical Notices.

Sixth Annual Report to the Legislature of South Carolina, relating to the Registry and Returns of Births, Marriages and Deaths in the State, for the Year ending December 31, 1859. By ROBERT W. GIBBES, JR., M.D. Columbia, S. C. 1860. Pp. 116.

THIS admirable report comes to us with remarkable promptness, and evinces much care and faithfulness on the part of the Registrar. South Carolina is one of the few States in which more than usual attention has been given to the subject of registration, and where the results have been correspondingly satisfactory.

According to the census of 1850, the population of South Carolina consisted of 668,507 individuals—of whom 274,563 were whites, 8,960 free colored, and 384,984 were slaves; the proportions of each race being—whites, 41.07; free colored, 1.34; and slaves, 57.59 per cent., the latter comprising a little more than one half the population of the State. In noting the rate of increase in each race during each decade of the last sixty years, it appears that while the whole population

has increased slowly, the rate of increase almost steadily diminishing, the proportion of slaves to the whole population has regularly advanced, that of the whites has fallen off correspondingly, while the free colored have remained nearly stationary.

"With regard to the proportion of sexes," says Dr. G., "137,747 were white males, and 136,816 females, or 99.32 females to 100 males. Of the free colored, 4,131 males, and 4,829 females, or 116.89 females to 100 males. Of slaves, 187,756 males and 197,228 females, or 105.04 females to 100 males. In the total population there was a preponderance of 2.80 per cent. for females—a very unusual condition of things, except in the New England States, where the females have always been in excess, as shown by every census. In all other parts of the United States the males are in excess from 4 to 10 per cent. In 1850, the total white population of the United States, including New England, gave a male excess of 5 per cent., and the total slave population of the Southern States only .05 per cent. The free colored population, however, gave a female excess of 8.16 per cent."

The whole number of births registered for the year is 20,054. Of these, we find that 10,237 were males, and 9,817 females, or 104.27 of the former to 100 of the latter. The largest male excess seems to be among the whites, this being 108.17 to every 100 females, while among the slaves there are 102.77. The greatest number of births of both classes took place in December, and the fewest in January and February. It is worthy of note, that the least fecundity seems to have characterized these two months in the three preceding years. The greatest fecundity in those years was in September, so that we infer the months most favorable to conception to be December, March and January. That December should stand first, may be partly attributable to the fact that more marriages are consummated in that month than in any other, as we shall see hereafter. The largest male excess was in January, which has always given the fewest births; while September, November and December, which produce the most births, show the smallest proportion of males.

The proportion of plurality births was 1 in 94.59 in both races, there being a larger number among the whites.

The number of marriages for two years past was about 1,600 for each year, by far the largest number having taken place in December, and the fewest in June. Of the men, it appears that nearly one half enter the connubial state below 25 years of age; while more than two fifths of the females marry in their teens, and nearly three fourths under 25 years.

Of deaths, from known causes there were 7,723; the largest number having occurred in August, and the smallest in January. The mortality, judging from the tables for four years, seems to increase pretty regularly from January to August, and then gradually to diminish. There were twenty-two deaths of persons of 100 years old and more; four of whom only were whites. The principal causes of death were pneumonia—which seems to be the most fatal disease—typhoid fever, dropsy and phthisis; the first-named disease being most prevalent in January and February, and typhoid fever in July.

The classification adopted by Dr. Gibbes, is that recommended by the American Medical Association in 1847, somewhat modified. It certainly, as the Registrar suggests, is to be preferred to that of Dr. Farr, as being more simple and better adapted to popular use.

A Practical Treatise on the Diseases of the Lungs, including the Principles of Physical Diagnosis. By WALTER HAYLE WALSH, M.D., F.R.C.P. A new American, from the third revised and much enlarged English Edition. 8vo. Pp. 468. Philadelphia: Blanchard & Lea. 1860.

As the previous editions of this standard work on Diseases of the Lungs have already been noticed, we have little more to say at present of the volume before us, than that the work has been considerably enlarged, and presents a most careful and faithful study of the subjects treated of. It contains the results of the more recent examinations of the various acoustic phenomena; and the author has attempted to establish the practice of percussion on a new, and, as he regards it, "a more clinically-useful method" than has hitherto been adopted.

The Appendix, which is devoted to the subject of climate in its therapeutical relations, we regard as one of the most instructive and important in the book. In this age, when the conveniences of travelling are such that nearly every variety of climate is comparatively easy of access, this subject becomes one of peculiar importance, and the selection of any one best adapted to the condition of the patient a matter that of necessity demands an accurate knowledge of the various atmospheric, celestial and telluric influences, which in a great degree go to constitute the different climates of the earth. It must be remembered, however, that besides these influences there are still others which are wholly beyond the range of meteorological investigation. "We cannot," says our author, "announce, *a priori*, the influence which any one climate will exercise upon the inhabitants of another, though the meteorology of both regions be perfectly marked out according to the standard of existing physics."

Of the few general truths capable of being practically utilized, he regards the following as among the more important. Absolute temperature is of much less consequence than the relationship of the temperature of the new to the old. It is a grave mistake to suppose that a given climate cannot effect a beneficial change in consumptives, because the natives themselves more or less frequently die of phthisis. Extreme climates are, as a rule, injurious. Moderately frequent change from place to place is more efficient than a long sojourn in one place. Theoretically speaking, steadiness of temperature from day to day, with but slight nocturnal fall of the thermometer, ranks as a very important condition; but, practically, this turns out to be comparatively insignificant. Next to genial warmth, stands the dry and bracing; and, *per contra*, the moist and relaxing quality of climate. Places subject to wind, or to rapid alternations in the weight of the atmosphere, as indicated by the barometer, are unfit for pulmonary sufferers. The food of the proposed place of abode, the peptic qualities of the atmosphere, as well as the effect of the climate on the temper, should all be carefully considered with reference to the character, constitution and condition of the patient. Dr. Walshe's division of climates into groups, each characterized by distinct and well-marked peculiarities, is a good one; these are eight in number, and comprise every variety that could be made serviceable. We have not space to notice farther a book which must be regarded, on the whole, as one of the most useful of its kind that has recently appeared, and which we cordially recommend to those not already familiar with it.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

Nov. 12th.—*Malignant Tumor in a Fœtus.* Dr. GAY showed a fœtus, bearing a large tumor on the nates and lower part of the back. It was of a soft-solid consistence, covered with veins, and looked like encephaloid. After the fourth month of pregnancy, the mother experienced a great increase of size, with pain and general uneasiness, and had a feeling as if labor were approaching. She went on, however, until the sixth month, when regular labor-pains came on. The head presented, and, the membranes being ruptured, a gallon of liquor amnii was discharged. After the head and shoulders were born there was considerable delay, as if the body were retained by something behind. Several severe pains followed, and at length the whole was expelled, when it was found that the obstruction had been caused by the tumor, which was three times the size of the head.

Dr. ELLIS said the tumor was found, by the microscope, to contain delicate cellular or fibrous tissue, and an abundance of small granular nuclei, with small, indistinct nucleoli, such as we sometimes see in disease which is clinically malignant, but which are not characteristic of cancer. In some respects the growth resembled a specimen which he exhibited several weeks since to the Society, but which also contained osseous formations. The present tumor contained no bone, but there were cartilaginous-looking points, which were of interest in this connection, and a multitude of cysts.

Dr. JACKSON said he should not hesitate to call the disease encephaloid, and he should expect it to return if it had been removed from an adult. Perhaps in the secondary growth we might find microscopical appearances which were more characteristic of cancer. He had never before seen a specimen of cancer in a fœtus, nor does he know of one. He once saw a case of encephaloid disease of the testicle in a nursing child, which appeared when the patient was eight days old, and he referred to a specimen in the Society's Cabinet, of presumed congenital cancer, which is described in the Catalogue (page 43).

Nov. 12th.—*Is Procreation possible in a Man whose Penis has been removed?* Dr. GAY said that two years ago he removed the entire penis, close to the scrotum, from a man 56 years old, for cancer of the glans. Six months afterwards he examined the man, and could find no trace of the organ, but at the upper part of the scrotum, at its junction with the skin of the pubic region, could be seen a conical, corrugated, cuticular depression, an inch in depth, with a small, irregular opening at the apex, corresponding to the meatus urethræ. Lately the patient had come to him, saying that a woman had sworn a child on him, and asking whether he could be considered capable of fruitful sexual connection. He stated that during erection the penis was about the eighth of an inch in length, and that more or less of the depression always remained. He had emissions in his sleep, occasionally, but never during connection, as he knew. The rudiment of penis was covered with the ordinary integument, and no mucous membrane could ever be seen, and Dr. Gay thought that friction could hardly produce in it the sexual orgasm.

Nov. 26th.—*Death after Convalescence from Typhoid Fever.* Dr. SHATTUCK reported the following case.

Mr. H. M. Daniels, aged 24 years, a medical student, had typhoid fever, from which he was convalescent about the 1st of November. At that time, however, he had diarrhœa, which continued, and for which he took opiates and Port wine. His appetite was hearty. On Tuesday, Nov. 13th, he attended the inauguration of the Zoölogical Museum, at Cambridge, ate some indigestible food, and got quite tired. The next day, the diarrhœa ceased. On Thursday, he dissected from 2 till 10 o'clock, P.M., and then studied until midnight. On Friday morning he awoke with great distress from flatulence and pain in the bowels. On Monday evening he was brought on a litter to the Hospital, in great distress, vomiting frequently a greenish fluid. The abdomen was tympanitic and tender. The patient was moaning, and frequently changed his position. Tongue moist, with thin whitish coat; pulse 86. The next day he remained in the same state, and passed about two pints of fæcal matter, after enemata. On Wednesday, the pulse rose to 128; the skin was hot; there was frequent vomiting of a darkish green fluid, especially after taking liquids, which his great thirst impelled him often to do. The abdomen was tense, resonant, and painful on pressure. On Thursday, the pulse was 148. He said he had little or no pain. A fæcal odor was noticed in the matters vomited. The mind was clear, and the patient was cheerful. He died at 9 o'clock, P.M.

At the autopsy, which was made by Dr. Ellis, the small intestines were found slightly glued together, and there was general congestion of the peritoneum, but no pus was found in the peritoneal cavity, nor was there any perforation. No disease of the mucous membrane of the ileum was found in the six feet nearest the ileo-cæcal valve, but above this many patches of Peyer, though not at all elevated above the surrounding surface, were quite red and filled with numerous round or linear ulcers, none of which appeared to extend deeper than the sub-mucous coat. The last two or three feet of the ileum were contracted, very red, and adhered quite firmly to the upper part of the pelvis. The intestine contained much bright-yellow, thick fluid. Nothing was found in the appendix. There was no enlargement of the spleen.

Dr. JACKSON remarked that the condition of the patches was such as they usually present in the third week of typhoid fever, which was remarkable, considering the duration of the disease. He remembered a case, under the care of Dr. Strong, in which the appearance of the patches was quite recent, though the patient had died three months after the beginning of the fever.

Nov. 26th.—*Hæmorrhage from the Left Subclavian Artery.*—Dr. LYMAN reported the case.

The patient, Crook, a healthy man, about 35 years of age, while eating his dinner, on Tuesday, Nov. 13th, was seized with a sense of constriction in the œsophagus, at about the level of the upper edge of the sternum, and though not conscious of having swallowed any hard substance, was convinced that something was lodged in his throat. He was first seen by Dr. Lyman about 4 o'clock of the same day. Examination of the throat revealed nothing abnormal. An œsophageal forceps (Bond's) was passed gently, well down the œsophagus, without meeting any obstruction. A probang, with an olive-shaped ivory bulb, was then introduced as far as the cardiac orifice of the stomach, without resistance, and likewise without relief. The patient was desirous that the proceeding should be repeated, but in

the absence of any clear evidence that the difficulty was due to the presence of any foreign body, and particularly as the patient could swallow fluids, he was advised to omit further interference until the following day, in the hope and with the belief that the feeling of constriction, whatever might be its cause, would disappear spontaneously.

Wednesday, the 14th, he appeared again, and though somewhat better, he desired to have the probang passed once more. This was done, but without relief. An ordinary sponge probang, such as is used for the larynx, but straight, was then well oiled, and passed its whole length, in the hope that any small foreign substance would be more easily caught by the sponge, and removed, and though nothing was felt, the patient expressed himself as much relieved, and went away.

Thursday, Nov. 22d, eight days having elapsed, Dr. Lyman was summoned, in haste, to Crook's residence in Roxbury, with the statement that he had fallen from a street-railway car, and was passing blood freely, both by dejection and vomiting. In answer to inquiries, he stated that he fell in consequence of faintness. There was no external injury. He had vomited and passed by the bowels a large quantity of dark, grumous, bloody-looking fluid, and in the dejection was found a clot of blood of the size of a pigeon's egg. He complained of great prostration and faintness, and more particularly of numbness, and loss of power in the left arm, especially of the two middle fingers. This symptom, in a less degree, together with an uneasy sensation in the left chest, it was now ascertained, had been more or less an annoyance to him since the 14th. In consultation with his attending physician, Dr. Allen, of Roxbury, and in view of the doubtful source of the hæmorrhage, aneurism was suggested, though the probability of ulceration, caused by some foreign substance, swallowed on the 13th, was of course not lost sight of. On Friday morning, the 23d, he was thought to be more comfortable, though the hæmorrhage continued to some extent. On Saturday, the 24th, he was much in the same condition; but at 2 o'clock, he vomited a large quantity of grumous matter and blood, became immediately unconscious, and died soon after five.

The autopsy, seventeen hours after death, by Dr. ELLIS, revealed the following appearances:—

Nothing remarkable externally, except excessive paleness. The soft parts were all removed together, from the tongue to the duodenum, inclusive. During their removal there was noticed a thickening of the tissues in the neighborhood, and a firmer attachment to the spine than usual.

In the left side of the œsophagus, half an inch below the lower edge of the thyroid, was an opening a quarter of an inch in length, with smooth edges, communicating with an elongated cavity two inches in length, with dark-brown, loose, offensive walls, and containing a little offensive fluid of the same color. This cavity opened below into the left subclavian artery, at a point about an inch from the aorta, by a rounded orifice, two lines in diameter, the edges of which were thin, and dark-brown. No evidence of a foreign body was found at the autopsy, but on subsequent examination of the diseased part, an exceedingly small spiculum of wood, perhaps three lines in length, one in breadth, and of almost inappreciable thickness, was discovered in the

cavity. About three inches below the opening in the œsophagus were two irregular red patches, denuded of epithelium, and bounded inferiorly by a short transverse band, nowhere entirely detached. The thoracic organs were all healthy. The stomach contained a large mass of freshly-coagulated blood.

Dr. Lyman remarked that there was a great deal of obscurity as to the nature and cause of the lesion. It might possibly have been caused by the instruments used to remove the supposed foreign body, but this seems very unlikely, as they passed with perfect ease, no force whatever having been used. A spiculum of bone, or other substance, swallowed by the patient, might have pierced the œsophagus and artery; though the minute shaving of wood, found in the cavity, could not possibly have done this. Lastly, the case might have been one of œsophageal abscess; but if so, it was preceded by no chill, or other symptom common in the formation of pus. Dr. D. was quite confident there had never been a bone in the throat, and the patient had not been conscious of anything of the kind in eating.

Dr. JACKSON had examined two or three fatal cases of suppuration in the cellular tissue about the œsophagus. In all of them the disease was extensive, and they contrasted strongly with Dr. L.'s case, in which there was no appearance of pus or lymph.

Dr. CABOT suggested that the blood passing through the cavity might have washed out the pus, and that the other appearances of inflammation might have disappeared before death.

Dr. ELLIS remarked that several quarts of blood must have passed through the cavity.

Dr. WARREN said he had never known any injury to follow the use of the probang, which is remarkable, considering the force sometimes employed.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 13, 1860.

FORGERY OF A DIPLOMA.—We have already spoken of the ease with which medical diplomas are obtained in this country, and the consequent depreciation in their value. We do not, therefore, expect that any one will take the trouble to forge a diploma here, as it might be an obstacle to his success; but, if the following case serve no purpose as a warning, it may afford some gratification to those interested in the standing of the profession abroad:—

At the Dumfries Circuit Court, on the 28th Sept., before Lord Cowan, David Gibb, medical student, Glasgow, was charged with the crimes of 'falsehood and forgery, in so far as, on or about Tuesday the 3d July, 1860, at or near Rosehall, in the parish of Dumfries, said David Gibb, being desirous of obtaining the appointment of assistant-surgeon to the Dumfries, Roxburgh, and Selkirkshire Militia, did wickedly and feloniously, at aforementioned place, write and fabricate, or cause to be written and fabricated, a simulated document purporting to be a diploma of competence from the Faculty of Physicians of Glasgow, and did utter and use such document, he well knowing it to

be a forgery.' The panel pleaded guilty of uttering and using such document. Mr. A. T. Boyle, prisoner's counsel, in extenuation, said that the panel, as a student in the Andersonian University of Glasgow, bore the most irreproachable character. Mr. Boyle produced certificates to that effect from Professors Bell, Morton, and Penny, of the Andersonian University, Glasgow, and from Dr. Watson of the Royal Infirmary there. Mr. Boyle said it had not been out of any sordid motives that his client had uttered this document. It was well known that the salary of an assistant-surgeon was a mere trifle, while the expense of equipment was considerable. It had been out of a desire—he might almost say a boyish desire, for at that time Mr. Gibb was scarcely twenty—to enter the ranks of such a regiment as the Dumfries Militia, that in an evil moment he had yielded to ill advisers, and uttered this document. He had made every reparation in his power by repaying the small sums he had received as salary while performing the duties of assistant-surgeon; and he (Mr. Boyle), hoped that his Lordship would take as lenient a view of the matter as possible, in consideration of the youth of the panel and the misery he had endured since that unhappy occurrence. Lord Cowan said that it was one of the most painful cases he had ever met, that a young man of the education, character, and talents which the prisoner appeared to possess, should ever so far forget himself as to commit this breach of law. It was within his recollection when forgery was visited with the highest penalties of the Court. Luckily, this case was not one such as the forgery of bank bills, but one which had been of little benefit to the panel. But, even looking at the present offence in its mildest form, he could not, sitting there to award impartial justice, visit it with a less penalty than twelve months' imprisonment, to show all that in this country no good could be attained by evil. He hoped that when the prisoner was restored to society this would prove a lesson to him.—*Dumfries Standard*.

VERMONT ASYLUM FOR THE INSANE.—From the Twenty-Fourth Annual Report of the Superintendent, it appears that 574 have enjoyed the benefits of the institution the past year. There were 431 remaining at the commencement of the year; 143 have been admitted; 138 have been discharged, and 436 now remain. Of those discharged, 58 have recovered.

The income for the past year has been \$59,270.28, and the expenditures \$57,809.68, leaving a balance of \$1,460.60, which it is believed will more than balance the bad debts for the same time.

Improvements are constantly being made for the comfort and welfare of the patients, and the facilities are increased for their restoration.

The Trustees state, in their Report, that in their visits to the Asylum, they have noticed the comfort and good order which everywhere prevailed, and believe the designs of the Institution are carried out in a faithful and judicious manner.

MORTALITY OF PROVIDENCE, R. I.—From the monthly report of the City Registrar, Dr. Edwin M. Snow, we learn that the number of deaths in November was 28 less than in October, and only two more than in November, 1859. Of the whole number of decedents during the last month, there were 36 males, 34 females; 59 of American

and 11 of foreign *nativity*; 40 of American and 30 of foreign *parentage*; only 21 under 5 years of age, while 29 were over 40 years, and 14 over 60 years; 30 were on the east side, 37 on the west side, and 3 in public institutions. Twenty deaths were caused by consumption, 8 by inflammation of the lungs, 3 by diphtheria, 3 by typhoid fever, and 3 by dysentery. There was not a single death from croup, scarlatina, or smallpox, all of which usually prevail at this season. The whole number of deaths was seven less than the average in November for the last five years.

At the present time the health of the city is extremely good for the season; there is scarcely any scarlatina, no smallpox, and very little typhoid fever here. Diphtheria is quite prevalent in all parts of the city; but of a very mild character. There have been probably hundreds of cases during the last five weeks, with only three deaths. Of these, two were German and one Irish children. The disease seems to be more fatal at present in the neighboring towns than in the city.

RAIL-CAR VENTILATION.—The City Inspector, of New York, in his Annual Report for 1859, makes the following remarks, which apply equally well to this locality:—

“The want of proper ventilation in the rail-cars of the city has become a subject of importance to the travelling community. Under the most favorable circumstances, the travel in the cars in this city is attended with no inconsiderable hazard to those whose business compels their use. It is of frequent occurrence, with at least one of the up-town trains, to stop and take in invalids when they present themselves, who may be on their way to some public hospital, without regard to the health of the other passengers. Frequently from thirty to forty persons are crowded together in these cars, the doors closed, and with no escape for the foul air that is immediately generated. All complaints upon this subject are unavailing; to the managers gain is everything, the public health and convenience nothing. Many of our citizens prefer cold and exposure, from a stand outside of the car, to the hazard of contagion from a seat within.”

TRACHEOTOMY IN CROUP.—M. Henriette, of the St. Pierre Hospital, Brussels, in a note to Professor Thiry, states that having well nigh abandoned this operation, after repeated failures, his confidence in it has of late been restored by several instances of success, he having had four recoveries out of eight operations performed since the end of last year. He believes the chief cause of its failure is the delay in resorting to the performance of the operation. As soon as medical means have failed, and the early symptoms of asphyxia are present, when, indeed, we can otherwise only look to chance for success, we should at once operate before the child's powers become too much exhausted.—*Presse Méd. Belge*, No. 34.

PREPARATION OF CARBONIC ACID.—Messrs. Meschelynck and Lionnet have devised a means of preparing large quantities of carbonic acid from carbonate of lime, at a comparatively nominal cost. The operation consists in passing the vapor of water over carbonate of lime. It is well known that chalk undergoes decomposition at a moderately

high temperature, and that the change is much promoted by the presence of steam ; but the authors indicate that if the chalk be subjected at 100° to a current of steam, the whole of the carbonic acid is disengaged with sufficient rapidity to render the process a convenient one for use upon the large scale.

The authors recommend the following mode of operating :—Refractory earthen retorts, filled with chalk, are heated to dull redness in a reverberatory furnace. Currents of steam are then passed through the retorts, when large quantities of carbonic acid are immediately evolved.—*London Pharmaceutical Journal*.

DR. HUBBARD, in the *Nashville Journal* for November, 1860, in noticing a case reported in this *JOURNAL*, in which the twins weighed at birth 17 pounds and 5 ounces, mentions a case which occurred in his own practice, in which the twins weighed 18 $\frac{3}{4}$ pounds—the boy 8 $\frac{3}{4}$ pounds, and the girl 10 pounds. In this case both children presented by the head, and in first position—a rare circumstance.

MILITARY SURGERY.—Prof. Frank H. Hamilton, of the Long Island College Hospital, will give his next preliminary course on this topic, with which he has acquired great familiarity. Our army surgeons, and those intending to become such, will find such a course profitable to them, as it will be to medical students generally.—*Am. Med. Gazette*.

DR. CLARKSON T. COLLINS, formerly Editor of the New York Medical and Surgical Reporter, has relinquished his medical institution in Great Barrington, and will spend some time in visiting Cuba and the Southern States.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, DECEMBER 8th, 1860.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	31	37	68
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	36.1	33.2	69.3
Average corrected to increased population, . . . . .	..	..	77
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Chol. Infan.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
13	0	5	9	0	0	0	1

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	29.755	Highest point of Thermometer,	41°
Highest point of Barometer,	30.198	Lowest point of Thermometer,	17°
Lowest point of Barometer,	29.250	General direction of Wind,	West & N.W
Mean Temperature,	30° 1	Whole amt of Rain in the week	0.570*

* Melted snow. First snow fell on 4th instant.

BOOKS RECEIVED.—Communications of the Rhode Island Medical Society for the year 1860.—Object and Plan of an Institute of Technology, &c.—An Introductory Discourse on Speculative and Inductive Medicine, by Henry Hartshorne, M.D., Prof. of Theory and Practice of Medicine in the Medical Department of Pennsylvania College.—Twenty-Fourth Annual Report of the Vermont Asylum for the Insane.

DIED,—At Bedford, N. H., Dec. 4th, Peter P. Woodbury, M.D., aged 69 years.

Deaths in Boston for the week ending Saturday noon, December 8th, 68. Males, 31—Females, 37.—Accident, 1—disease of the bowels, 1—congestion of the brain, 1—inflammation of the brain, 4—bronchitis, 1—burns, 1—consumption, 13—convulsions, 1—croup, 2—debility, 3—dropsy, 3—dropsy of the brain, 3—drowned, 1—scarlet fever, 5—typhoid fever, 1—gangrene of the lungs, 1—disease of the heart, 3—intemperance, 3—congestion of the lungs, 1—inflammation of the lungs, 9—marasmus, 1—old age, 2—paralysis, 1—pleurisy, 1—scrofula, 1—rupture of the uterus, 1—unknown, 3.

Under 5 years, 27—between 5 and 20 years, 5—between 20 and 40 years, 14—between 40 and 60 years, 12—above 60 years, 10. Born in the United States, 45—Ireland, 19—other places, 4.

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No. 21.

OBSERVATIONS UPON A MORBID CONDITION OF THE NECK OF
THE BLADDER NOT DESCRIBED BY SURGICAL AUTHORITIES.

BY D. D. SLADE, M.D., BOSTON.

[Communicated for the Boston Medical and Surgical Journal.]

WE propose to offer some observations upon a morbid condition of the neck of the bladder, not unfrequently met with, which has not been recognized as a distinct malady by writers on diseases of the urinary organs. To this morbid condition we give the name of "contraction of the neck of the bladder."

We shall consider, in the following pages, the nature of this affection, the conditions upon which it depends, and its merits to be classified as a distinct disease.

In the first place, what are we to understand by the "neck of the bladder?" As described by most anatomists, the term is limited to the urethro-vesical orifice, but, in a surgical point of view, it should be considered as comprising not only this orifice, but also the deep portions of the urethra, as far forward as the anterior layer of the triangular ligament, or, in other words, as occupying the entire membranous and prostatic portions of the canal. Neither is this definition by any means an arbitrary one, as will be seen.

Now, if we admit the existence of such an affection as the one under consideration, we must establish the presence of muscular fibres entering into the structure of the neck of the bladder, such as we have described it. For this purpose, we must enter somewhat fully into the anatomy of this particular region.

Included between the two layers of the triangular ligament are certain muscular fibres, which have attracted much attention on account of the influence which they exert upon the membranous portion of the urethra. These muscular fibres are disposed in two directions, one being perpendicular, and descending from the pubes, and the other being horizontal and passing inwards from the ramus of the ischium, both embracing the entire length of the

membranous urethra. These have been described as one muscle, the compressor urethræ, or more properly as two, under the names of Wilson's and Guthrie's muscles.

Guthrie's muscle arises by a narrow aponeurosis, from the posterior aspect of the ascending ramus of the ischium, just below its junction with the descending ramus of the pubes. From this point its fibres pass transversely across the perinæum, as far as the membranous portion of the urethra, where they separate into two slips, one of which is expanded upon the upper, the other upon the lower surface of the canal.

Wilson's muscle is of triangular shape, and arises by a round, narrow tendon, from the posterior part of the pubic symphysis. It descends vertically along the median line, gradually increases in breadth, and is connected with the upper slip of Guthrie's muscle. The functions of these muscles are sufficiently evident. When both compressors act together, they can diminish the calibre of the canal, and even close it entirely. The office of Wilson's muscle is to draw the membranous urethra upward towards the arch of the pubes.

Next, as to the intimate structure of the urethro-vesical orifice itself, the *anatomical* neck of the bladder, have we here muscular fibres, and in what manner are they disposed?

It is well known to what controversy the descriptions of the precise arrangement of the muscular fibres surrounding the orifice of the neck of the bladder, have led, since they were delineated by Sir Charles Bell. It would be needless for us to enter into this discussion; we shall therefore confine ourselves to a simple description, as shown by careful dissection.

The muscular coat of the bladder consists of strong, reddish fibres, arranged in two strata. The fibres of the one are directed longitudinally, and extend from the neck of the organ to its summit. The fibres of the other are arranged transversely; and around the orifice of the neck, they are so disposed as to encircle the organ—thus forming what may be properly termed a sphincter. However this may be, whether there is a true sphincter vesicæ or not, it is very certain that the muscular fibres just spoken of, exert a powerful influence in spasmodic retention of urine, the flow of which they often greatly obstruct, if not entirely prevent by their action.

With regard to that portion of the neck of the bladder, which is comprised in the prostatic urethra, modern research has here also established the presence of muscular fibres. Formerly the prostate was considered as a strictly glandular body, but it can now be shown to be made up chiefly of the organic muscular fibre, this tissue forming at least two thirds of the mass. Professor Ellis, of London, after repeated dissections of the part, has come to the conclusion that the prostate has no claim to be regarded as a gland at all, in the sense in which that term is used commonly—but rather as a muscular body permeated by urethral glands. That

the body of the prostate is constructed of organic muscular fibres arranged in a circular manner, around its long axis, through which passes the urethra. That these are continuous posteriorly with the circular muscular layer of the bladder, so that between this and the prostatic fibres there is no kind of separation or line of demarcation. That, at the anterior limit of the organ, there is also no absolute distinction between these and the layer of circular fibres surrounding the membranous portion of the urethra, in which situation it is represented as being about one thirtieth of an inch in thickness.

Professor Ellis says, "As the prostatic enlargement includes only part of the muscular stratum on the urethra, I would propose the name '*orbicularis vel sphincter urethræ*' for both the prostate, and the prolongation around the membranous portion of the urethra; whilst I would confine the old term prostate (without the word gland), to the thickened and more powerful part, near the neck of the bladder. The orbicularis may be considered as only an advanced portion of the circular layer of the bladder, though it must have the power of acting independently of the vesical fibres, as, for instance, in the propulsion of the seminal fluid."*

Thus, anatomy clearly demonstrates the presence of muscular fibre entering into the structure of the region which we have described as the neck of the bladder; and as it will be readily granted that all muscular fibre is susceptible of spasm and contraction, the neck of the bladder must necessarily submit to the same law; and that it does, is daily made evident to us when we pass the bougie or catheter.

We may therefore define contraction of the neck of the bladder as a peculiar morbid condition, characterized by certain well-marked symptoms, and dependent upon the permanent and involuntary contraction of those muscular fibres which we have described as entering into the structure of the neck of the bladder.

This affection may exist in very different degrees. The contraction may be so great as to bring about retention of urine; generally, however, it is not so well marked, and consequently far less formidable.

It should be remembered that contraction is distinct from spasm, which last is essentially temporary; although the former may commence with spasm, and may also be complicated with it. Contraction comes on gradually and slowly, and disappears in a like manner. Spasm, on the contrary, comes and departs suddenly.

Pathology.—When we study attentively the diseases of the urinary organs, we are very soon convinced of two principal facts:—viz., First, that the neck of the bladder is the region to which is referred almost every morbid sensation. When primarily affected, it is the starting point, the centre from which radiate various ab-

* Transactions Med. Chir. Society, Vol. xxxix,

normal symptoms. On the other hand, it is the centre towards which converge, and where the effects of the various disorders which have their origin in other portions of the urinary apparatus, are more especially made evident. Secondly, that the greater part of the diseases of these organs are characterized by one and the same phenomenon, viz., trouble in micturition; and more, that it is to the neck of the bladder, almost entirely, that are referred the painful sensations which accompany the act of micturition.

Now, these remarks are especially applicable to the disease under consideration. As will be seen, when we come to speak of the symptoms of contraction, the most prominent of these consist in the difficulty attending micturition, and in the greater or less amount of pain referred to the vesical neck.

The morbid phenomena which characterize contraction is spoken of by surgical authorities under the terms "vesical neuralgia," "nervous conditions" of the deep portions of the urethra and of the neck of the bladder. Civiale, in particular, devotes much space to the investigation of this condition, under the term "Neuralgia of the neck of the bladder," and approaches quite near, in his descriptions, to the malady which we would depict.

In addition to the constitutional symptoms mentioned by this writer as characteristic of neuralgia of the neck of the bladder, he speaks of spasmodic contraction, sharp pain, and difficulty in micturition. He also says, "The sensibility and contractility of the neck of the bladder are so intimately connected, that any increase in the one, ought to modify the other, and thus affect the functions of the bladder. We shall see, in fact, when we speak of the diseases of this organ, that the different degrees of the contraction of its neck play a conspicuous part in most of the affections by which the bladder is attacked."

Both in health and disease, then, it is to the neck of the bladder that is referred any abnormal sensibility; and, moreover, this spot serves as the point of departure for those morbid phenomena, which so clearly illustrate the relations existing between the different portions of the urinary organs, or between these and other parts of the system.

We have previously remarked that all muscular fibre is susceptible of spasm and contraction. Moreover, *permanent* muscular contraction is recognized as a malady by most medical authorities, and it is usually described as divisible into two classes, general and partial. Both of these classes are dependent upon a variety of causes, among which the nervous and rheumatic affections play the most important part. Numerous cases, in illustration, are given by writers on this subject. If, then, we cannot classify contraction of the neck of the bladder, as a *distinct* disease, its situation, the peculiar symptoms, and the results to which it may give rise, all entitle it to be especially recognized and described by writers on diseases of the urinary organs.

Symptoms.—The symptoms of this affection consist chiefly in the difficulties attending micturition, and in certain sensations more or less well marked, of which the patient complains.

First, Difficulties attending micturition. The desire to urinate is frequent, and in some cases so imperious that the patient cannot wait either for a suitable time or place. In order to commence micturition, he is obliged to strain, and not unfrequently the stream is suddenly interrupted in the midst of the process, as if a foreign body had intervened, to be resumed on renewed expulsive efforts. The stream of urine is not so large as natural, is varied in its form, and is not so well thrown out, the last drops tending to fall upon the pantaloons or upon the thigh of the patient. The last spasmodic efforts of the bladder are absent or are imperfectly performed.

Between the acts of micturition, and at the moment, the patient is not unfrequently annoyed by partial erections; these become at night complete, frequent and very fatiguing.

The character of the urine may or may not be changed; generally it preserves its normal condition, although more limpid than it otherwise is. Sometimes, however, we find it, in these cases, throwing down a more or less copious deposit of mucus. Very rarely does it contain pus or blood corpuscles.

Second, Certain sensations complained of by the patient.

Pain does not always, nor necessarily accompany "contraction of the neck of the bladder." When present, it varies in intensity and character, and is often intermittent. It is rarely present when the affection attacks children, and is most marked when the contraction depends upon rheumatism, and in that form which is due to a chronic inflammation of the neck of the bladder. It may amount to only a disagreeable sensation of tickling, or it may be acute and lancing, and is most felt when the desire to urinate comes on. The seat of the pain is very frequently referred by the patient to the fossa navicularis, and sometimes to the bulbous portion of the canal, as well as to the neck of the bladder. Occasionally it occupies the entire canal, and even spreads to the anus, pubes and thighs; following also the course of the ureters, it invades the lumbar region. Some patients complain also of more or less pain in the lower limbs.

There is a peculiar pain, which is eminently characteristic of the affection under consideration. This is felt just at the commencement of micturition, and is without doubt due to the forced opening, or separation of the contracted muscular fibres. This persists sometimes during the passage of the urine, and may be occasionally felt after the completion of the act.

Fatigue, excesses of any kind, mental or bodily, serve to exasperate all the symptoms of which we have spoken.

After this affection has existed for some time, it gives rise to certain complications, among which may be mentioned an hyper-

trophied condition of the submucous cellular tissue, at the lower part of the neck of the bladder, or more particularly at the lower portion of the vesico-urethral orifice; spasm after sexual intercourse, particularly if the intercourse be frequent, and preceded by long-continued erection; retention of urine; vesical catarrh; incontinence of urine, particularly among children; obstinate priapism and long-continued gleet discharges.

In females, we sometimes meet with certain symptoms, which in many respects are analogous to those which we have described, and which would seem due to a similar cause. These have been classified by M. Roux under the term "ano-genital, urinary neuralgia."

Although we have alluded to spasm in connection with contraction, it must be borne in mind, as we have already remarked, that contraction is distinct from spasm, although it may commence and be complicated with it. We shall refer to this point again, when we come to consider the diagnosis.

We have spoken of incontinence of urine in children, as a complication of contraction. This condition may rather be considered as a direct effect of the contraction, than as a complication. This point requires a brief consideration.

(To be continued.)

EPITHELIAL GROWTH FROM THE DURA MATER FOLLOWING AN INJURY—ABSCESS IN THE BRAIN.

By J. H. WARREN, M.D., OF DORCHESTER.

[Read before the Norfolk District Medical Society, Nov. 15th, 1860. Published by request.]

THIS, as it appears under the microscope (power of two hundred and fifty), is a very remarkable development of epithelioma.

CASE.—John C. Adams, aged 47, when about two years old, fell into the fire, and burnt the top of his head so severely, that adjoining portions of the parietal bones came away, leaving an opening as large as a silver dollar, from which there was a constant discharge until about seven years ago, when, in an encounter with a grizzly bear, he had his scalp turned down over his eyes. After this wound, his head entirely healed, and remained well till two years ago, when, while correcting some member of his happy family of animals in a cage, an ungentlemanly man-monkey dropped down upon his head and clawed, bit and tore it open again. It was now found impossible to heal it, as an epithelial growth attacked the dura mater, and very rapidly developed into a most unsightly disease. The growth extended through the osseous opening, one inch above the scalp, presenting a vivid-red appearance, not unlike the crest of a fowl. The interstices were filled with offensive pus. The disease extended from the left temple towards the right, four inches, and about three and a half in the opposite direction.

The brain was seen to rise and fall distinctly. If a spasmodic effort was made, like sneezing, the whole tumor would rise up half an inch above its usual height, and, at such times, emitted a singular odor, similar to that of burning phosphorus. This same odor was apparent during the convulsions to be mentioned hereafter. Hæmorrhage, at such times, occasionally occurred; it also took place at the slightest touch, such as removing the dressing, if a little dry or adherent. He at times appeared cheerful, but was not generally much inclined to converse. Whether this arose from the lonely habits of a hunter's life, or the disease, I am unable to say. I am inclined to the opinion, that both operated to depress his natural buoyancy of mind. For the last eighteen months of his life, the disease extended so rapidly as to produce great prostration of strength. Although he boasted that he had disease enough to kill most men, he said that he should fulfil his engagement to perform with his trained bears that season, and then die; which result speedily followed, as he had predicted.

Nothing of interest occurred until within about four weeks of his death, when paralysis of the right side took place, after a convulsion which attacked him in the horse cars. The convulsions continued at intervals, until his death, which followed about four weeks after their first appearance. He suffered a good deal of pain at times.

Sectio Cadaveris, sixteen hours after death. Body emaciated; rigor mortis moderate. The whole of the diseased mass had receded from the surface three quarters of an inch, and presented that white appearance so well described by Rokitansky in his works on Pathological Anatomy, in which may be found a very full description of epithelial cancer. Upon removing the calvaria, the dura mater was found adherent entirely around the edge of the opening, and extending back for about an inch. Upon the right side, the dura mater adhered slightly to the arachnoid, beneath the growth. Upon the other, the membranes were replaced by a dense white tissue, which firmly adhered to the brain itself over a surface about an inch in diameter. Beneath this was an abscess about an inch in diameter, which in all probability communicated with the ventricles, as they contained about an ounce of pus.

The weight of the brain, with the dura mater and epithelial growth attached, was four pounds.

It is interesting, in connection with this case, to allude to that of our distinguished friend, Dr. M. Swett, of Maine. In this, a large portion of the frontal and malar bones was blown off by the discharge of a cannon. But in the patient (Stewart), if I remember correctly, a false membrane, or curtain-like covering, extended over the denuded surface, and afforded a fair amount of protection. In our case, the diseased dura mater could be seen through the opening for many years, and yet the patient enjoyed

a fair share of health, and was in intellect by no means deficient. His father died of the same disease in the face.

WOUND OF THE PALM OF THE HAND.

[Communicated for the Boston Medical and Surgical Journal.]

R. HANDY, aged 18, of Fitzwilliam, punctured his hand with a common jack-knife, the 8th of April, 1860. It was dressed with adhesive plaster and bandage. The wound healed externally by the first intention. Three weeks from the time it was dressed, it burst open and bled profusely. An attempt was made to tie the radial artery. The hæmorrhage continuing unabated, I was called to see the patient for the first time on the 27th. At this time there was a diffused accumulation of blood in the subcutaneous and inter-muscular tissue, sometimes called diffused aneurism. I removed what coagulated blood I could, and applied a graduated compress, and secured it as recommended by Dr. Druitt, in wounds of the palmar arch. This arrested the hæmorrhage for four or five days, when the blood burst out on one side of the compress with as much force as at first. I then cut down to the palmar arch and ligatured the bleeding arteries, as recommended by Dr. Gross, Vol. I., pp. 9, 12, who says, "Wounds of the hand, especially of the palmar arch, are best managed by free incisions and the application of two ligatures. It is a great folly under such circumstances, nay it is positively worse than folly, to tamper with the comfort and welfare of the patient by the use of compression, either direct, or indirect, if the vessel be of any considerable size. Only time is wanted; the bleeding will return whenever the mechanical support is taken off,"—which proved too true in the above case. He farther states, that we now and then read of cases in which the brachial artery has been tied for the arrest of hæmorrhage of the palmar arch. Can there be anything more absurd than such a procedure, or show a greater degree of ignorance of the anatomy of the hand? The advice of John Bell, in his Principles of Surgery, in regard to the treatment of wounded arteries in general, cannot be too strongly enforced here: "Meet the danger boldly, and don't be afraid to look your enemy in the face."

I. P. WILLIS.

Royalston, Dec. 10, 1860.

FATAL CASE OF PAROTITIS.

BY DR. A. B. BANCROFT, CHARLESTOWN.

[Communicated for the Boston Medical and Surgical Journal.]

ON November 20th, a boy, 4 years of age, complained of not being well, and went to bed without his supper. In the morning, he

complained of severe headache, pain in the epigastrium, was nauseated, and vomited some dark-green matter. His mother gave him some senna, which he retained, and which moved his bowels some time during the night. On Thursday and Friday, he complained still of pain in the stomach—a statement which the father of the child thinks of no account, and might not have been true, as the boy, being but 4 years of age, might not have understood the meaning of it. During Thursday and Friday, as well as Wednesday, he was thirsty and had heat of the skin.

On Saturday, at 4 o'clock, P.M., I first saw him. Found him with a hot skin, rapid respiration, quick pulse, and cough; tongue with a dry brown coat. No disease of the lungs could be detected. The cough continued, with occasional rapidity of respiration, and the tongue presented the same appearance until Friday, the 30th, when his mother first noticed a swelling in front of his left ear, which increased rapidly until the time of my visit, 10 o'clock, A.M. His mother stated that he slept better during the night when the swelling appeared, than he had during his sickness. He continued to decline until Dec. 3d, without anything occurring worthy of note, except that on December 1st and 2d he was very restless, throwing himself from one side of the bed to the other. His treatment was mainly expectant.

Permission was given to examine the enlargement in front of the ear. It proved to be the parotid gland, which was much enlarged, reddened, and showed upon the cut surface many purulent points.

December 7th, 1860.

ARSENIC IN A DRINKING WATER.

BY ARTHUR H. CHURCH, F. C. S.

FROM the northern and western sides of Black Combe, a mountain in the southern part of Cumberland, situated near the sea, numerous streams or *becks* originate; I believe that one only of these exhibits any marked peculiarity. Whitbeck, such is the name of this stream, is fed by several small springs, and it was from the source of the most southerly of these where it rises from the ground, and at an elevation of about 900 feet from the sea, that I obtained a specimen of the water for examination. On the 29th of June in the present year, the water, at the time of collection, had a temperature of $8^{\circ} 5' \text{ C.}$, the air being $10^{\circ} 6'.$ The reaction of the water, as it issues from the earth, was faintly but unmistakably alkaline: on testing the water after ebullition the effect was more decided. The water from many other sources in the neighborhood of Whitbeck, where decomposing granite is of common occurrence, has an alkaline reaction. A large and deep pool

in the course of Whitbeck towards the sea shows the color of the water to be a rich clear greenish blue.

The water, on examination, gave distinct indications of the presence of arsenic. This element, which here probably exists as an alkaline arsenite, occurs not as a mere trace, but in determinable quantity. I have not yet ascertained the amount present, but hope to do so shortly, when I have obtained specimens of the water collected at different seasons of the year. I have satisfied myself, however, that in some seasons of the year the quantity present approaches a good fraction of a grain of arsenic (metallic) in each gallon of water. At the same time I am desirous of furnishing complete analyses of some interesting minerals obtained from the vicinity of the spring. For on ascending the gulley, a few yards above the source of Whitbeck, we arrive at the entrance to a mine, which, some years ago, was worked for cobalt and copper, and is now again being searched. Here I obtained very rich and massive silver-white arsenical cobalt ore, and also copper pyrites. The neighborhood for some miles is, in fact, rich in minerals. Dr. Fidler writes: "Almost immediately behind Whitehaven Parsonage a sulphur vein crops out, a continuation of the same vein that is being worked at Under Hill, but whether it exists in any quantity I do not know. There are three or four copper veins in a ravine behind Whitehaven Mill, one of which has been tried some twelve or fifteen fathoms below the surface." Baryta, also, has been found, I am told, above the source of Whitbeck, in the mine above mentioned.

It will be seen that the arsenic in the water of Whitbeck is thus most probably derived from the veins of arsenical cobalt ore through which it percolates.

The arsenical water is *habitually used for every purpose* by the inhabitants of the little village of Whitbeck, and, as far as I can learn, with beneficial rather than injurious results. But it is remarkable that Whitbeck, though in every respect suitable for trout, is the only stream in the neighborhood from which that fish is absent; eels, however, have been found in it. Ducks will not live if confined to this arsenical water. When the railway was being carried past Whitbeck, the first use of water quickly produced the usual marked effect on the throats both of the men and horses employed on the works. The soreness of mouth from which they at first suffered, soon, however, disappeared, and in the horses gave place to that sleekness of coat assigned as one of the effects produced by the administration of arsenic. It is a question how far the rosy looks of the Whitbeck children, and the old age which a large proportion of the inhabitants of the village attain, are to be attributed to the arsenic present in the water they drink.—

Chemical News, London.

Medical Reports from the Mass. General Hospital.

TYPHOID FEVER, WITH PHLEBITIS. (Under the care of Dr. MINOT.)—Thomas E., 39 years, single, English, a gardener and resident of Andover, entered Sept. 25, 1860. His health is generally good, but he passes much of his time in hot-houses and the damp sheds adjoining them. Has been losing appetite and strength since some exposure on the 18th, but continued at work till he was attacked on the 21st with vertigo and great prostration. On entrance, lies chiefly on right side; countenance slightly sallow; mind clear; much nervous restlessness; pulse 112; tongue clean, dry in the centre; gurgling and some tenderness at the right iliac fossa, and tenderness very marked at the left hypochondrium, and of this he makes most complaint; bowels have been loose for several days. R. Mist. febril., \mathfrak{z} i. 3 hours. Pulv. Doveri, gr. v. ter die. Fomentations were applied to the abdomen.

Sept. 27th and 28th, the 7th and 8th days of the fever, he is easier of the pain, but his mind is less clear than before, and speech at times a little incoherent. General muscular tremor, protrudes tongue quite slowly, and speaks indistinctly, like a person shivering with cold; a few doubtful rose spots on abdomen; slight crepitus at the base of right lung behind; pulse 116. From this date the symptoms became more distinctly typhoidal; his tongue became more brown and dry; he had mild delirium; subsultus tendinum; diarrhœa was more urgent; pulse ranged from 90 to 110, and lost its force; he had some disturbance of vision, and his speech was quite indistinct. He began to take beef tea on the 12th day, and wine whey on the 13th. He still complained much of the pain at the left hypochondrium. 18th day—Complains of tenderness in the upper part of the right thigh; there is some swelling and tenderness about the saphenous opening; the whole limb is larger than the other, but is not œdematous; no tenderness above Poupart's ligament; veins of abdomen and right thigh enlarged; still tender in left hypochondrium; pulse 96; tongue dry. Omit wine whey; apply spongio-piline over upper part of thigh. 23d day—Has had some wandering; tenderness about right inguinal region, where there is considerable enlargement; hard, nodulated, tender masses are felt along the line of Poupart's ligament; hardness and tenderness along the course of the femoral vessels; right leg is swollen down to the foot, foot and ankle quite œdematous; slept ill; pulse 92, weak; tongue black and very dry; has had chicken broth since yesterday; 6 leeches to groin; wine whey, \mathcal{O} j. in 24 hours. 24th day—Pain and tenderness less since leeches; tongue moister; roasted apple. 28th day—Tongue has again become black and dry; mind still a little confused; pulse 96. R. Brandy \mathfrak{z} ss. every 3 hours. This was continued till the 32d day, when there was an increase of pain and tenderness along the lower part of the thigh, and the pulse was 108. Omit brandy, resume whey. 33d day—R. Quin. sulphat., gr. ij. ter die. 34th day—Some headache; tongue more clean and moist; right leg swollen from hip to foot, and very tender along the femoral vessels; it is by measurement five inches larger than the left; apply 10 leeches. 35th day—Pain diminished after the application of the leeches, but is now as severe as before; appears to be gaining. 37th day—Leg was evenly bandaged from the foot to

the groin; quinine increased to gr. iiss. For two or three days after this, he complained of extreme debility, and was ordered brandy \mathfrak{z} j. ter die. He gained pretty steadily afterwards. 43d day—Tongue moist, nearly clean; less tenderness at right groin; some emphysema at the upper part of the thigh. R. chicken. 46th day—The bandage was removed, but he complained so much of pain that it was re-applied. 47th day—He was allowed mutton chop and ale, and on the 54th was put upon full house diet. His convalescence was rather slow, and the leg continued swollen for some time. 82d day—Legs of the same size; still some difficulty in getting up stairs; has been gaining daily in flesh and strength. Discharged Dec. 10, 1860.

TYPHOID FEVER, WITH NERVOUS SYMPTOMS. (Under the care of Dr. MINOT.) Oct. 6th, 1860.—Honora T., 17 years, single, Irish, resident of Boston, and a store tender, says health generally good, though she is subject to cough. Sept. 30th, her catamenia ceased rather suddenly, and she began to suffer from headache, backache and gradually increasing prostration; no epistaxis. At entrance she had pain and tenderness in the left hypochondrium and iliac region, much restlessness, slight delirium, a moist tongue, with thin coat. R. Mist. febril. 7th day—Face flushed and skin hot; headache and very restless; tongue dryish, no sordes; pulse 120; respiration sighing; number of small dark-red spots, slightly elevated, disappearing on pressure, at upper part of chest, none on abdomen; no dejection; tender in both iliac regions. R. Beef tea, \mathfrak{z} ij. every 3 hours; wine whey. R. Dov. pulv., gr. viij. at night. 8th day—Noisy and delirious night; pulse 120; no dej.; Ol. ricini, Valerian tertiis horis, wine. 9th day—Night as before; talking most of the time; pulse 112; tongue clean, dry, protruded slowly; 5 dejections; says is prevented from sleeping by fright. R. Morphiae sulph., gr. $\frac{1}{4}$ nocte. 10th day—More quiet day and night; pulse 120; tongue clean and moist; tenderness at both iliac fossæ; abdomen tympanitic, and eruption of small, red, slightly raised spots at upper part of chest. 12th day—Had been more quiet until 10 P.M. of last night, when she had an hysterical attack lasting about 3 hours, after which she slept till morning, and is now quite somnolent; pulse 104; several faint rose spots on the abdomen; has taken considerable nourishment. After this her nights were more quiet, though there was some starting and screaming in her sleep. The pulse fell to 90 on the 17th day; she began to have some appetite by the 14th day, and was allowed roasted apple. On the 16th, she took broth, and ale was substituted for the wine. There was some costiveness. 19th day—She was found to have been severely vomited and purged by surreptitious peaches. 21st day—She was allowed potato and chicken. She gained quite steadily, with the exception of a slight falling back with cough and some diarrhoea. This lasted but a few days, and her diet afterwards was changed more gradually. She was put upon house diet on the 41st day, and went out on the 45th. Catamenia appeared on the 52d day, but ceased on the following day after exposure. She was discharged well on the 57th day.

TYPHOID FEVER (?) WITH JAUNDICE. (Under the care of Dr. MINOT.) —Eliza McC., 15 years, born in Ireland, employed as domestic at Jamaica Plain, entered Oct. 6. Well as usual till Oct. 2d, when, with-

out any obvious cause, was attacked towards evening with headache, pain in the back and limbs; has been confined to the bed since Oct. 3d; has had no epistaxis; some tendency to diarrhœa; catamenia two weeks since; aspect feverish; skin hot and dry; thirsty; pulse 108. R. Mist. febril., \mathfrak{Zi} . tertius horis. Liquid farinaceous diet. 6th day of disease—Aspect dull, but answers well; lips dry and breath offensive; tongue dry and sticky; pulse 96; abdomen full and tympanitic, with some tenderness in the left hypochondrium, and in the left iliac fossa, on deep pressure. R. Ol. ricini. 7th day—Pulse 76; considerable headache; slept ill; one dejection. R. Pulv. Doveri, gr. x. at night. Wine whey, Oj. in 24 hours. 8th and 9th days—No delirium, and nights quieter; still complaining of headache and pains in the back and limbs; tenderness at right iliac region; sordes on teeth and lips; tongue thinner coat; pulse 64; bowels open. Omit wine whey. 10th day—Conjunctivæ and skin distinctly yellow; chief complaint is of pain in right hip, extending up to the crest of the ilium; tenderness in both iliac fossæ; mind clear; tongue dryish, with thin white coat. 11th day—Yellowness increased; pulse 80; quiet night, and has taken food pretty well; some retching this A.M., and one clay-colored dejection; much tenderness in the right hypochondrium, and dulness on percussion extends for about three inches below the line of the ribs. Six leeches to hypochondrium. R. Pil. calomel c., sextis horis. Cream of tartar for drink. 12th day—leeches bled copiously; more comfortable, but slept ill; pulse 72; tongue nearly clean, but dryish; sordes on lips and teeth; no rose spots; yellowness as yesterday; no dejection. Urine—acid; sp. gr. 1020; no albumen; triple phosphates in considerable quantity. Bile present, no casts. R. Pil. hyd. chlorid. mit., gr. iv.; Rheil., gr. vi., followed, if no effect in two hours, by a Rochelle powder. 13th day—Slight mercurial fœtor of breath; one dejection; pulse 72; a little appetite. Omit pills and fever mixture. R. Magnes. sulph., \mathfrak{Zss} .; inf. senna c., \mathfrak{Zij} . 14th day—Had three dark-colored dejections, and the jaundice was diminished; mind clear; tender at epigastrium and at right side; abdomen tympanitic. 19th day—tongue clean and moist; pulse 76; appetite good; has had citrat. magnes., and discharges look well. Took steak.

She continued to do well after this, with the exception of constipation and some headache. Jaundice had disappeared by the 25th day. She took house diet by the 36th day. Convalescence was somewhat retarded by pains in the arms and legs, sometimes so severe as to compel her to go to bed, but she improved pretty steadily, and was discharged well on the 51st day, November 21st.

A remarkable feature of this case was the existence of *yellow vision*, which the patient experienced for a day or two.

TYPHOID FEVER; DEATH. (Under the care of Dr. MINOT.)—Thomas W., 26 years, book-binder, married, English, resident of Boston, entered Oct. 13, 1860. Patient has been ailing for about two weeks, but kept at work till Oct. 8th, when he took to his bed with febrile symptoms, headache, considerable cough, and his sleep was disturbed by dreams; the bowels have acted normally; he has had an emetic; there has been no epistaxis. Lies by preference on his back; cheeks flushed; skin hot and dry; tongue moist, with thin white coat; pulse 100; **some tenderness at right hypogastric region; has tinnitus auri-**

um and muscæ volitantes, and is extremely nervous, the least noise disturbing him. R. Mist. febril., \mathfrak{z} i. tertiis horis. Liquid farinaceous diet. 7th day of illness—Slept about as usual; mind clear; two dejections since entrance; pulse 108; impulse of heart strong, with a short, sharp systolic murmur at the base; tongue nearly clean, moist; never had rheumatism. Continue treatment. 8th day—Mind clear; diarrhoea and epistaxis this morning; tongue more coated; pulse 116, soft. R. Mist. cretæ c., \mathfrak{z} ss.; tinct. opii, gtt. v. every dejection. 9th day—Considerable vomiting of a dark greenish fluid during the night and this morning. Thinks it was caused by the fever mixture. Some headache; mind clear; no dejection; no rose spots; tongue dry, with a thin white coat; pulse 96. Omit fever mixture. Beef tea. 10th day—Restless day and night, and some delirium in night; speech a little incoherent; no epistaxis; five or six dejections; slight tenderness of abdomen; tongue moist, with thin, yellow coat; pulse 108; says he is better. R. Wine whey, Oj. in 24 hours. 11th day—Mind a little confused; four dejections; tongue with thin, brown dry coat. 12th day—Uneasy night, and is now quite desponding and incoherent; frequent vomiting this morning; tongue tremulous, and covered with very thin coat; sordes on teeth; about a dozen pale rose spots on the abdomen; 4 dejections; gurgling at right iliac fossa, but no tenderness. R. Wine, \mathfrak{z} ij. with water bis die. 13th day—Delirious day and night, very violent at night; tongue dry, with thin brownish coat; skin very hot; pulse 144, fluttering; three dejections, not involuntary. R. Brandy, \mathfrak{z} i. secundis horis. Continued to sink, and died at 4½ A.M. of the 14th day.

Autopsy, by Dr. ELLIS. Brain and heart normal; blood mostly in liquid state, though some soft coagula; bronchial mucous membrane reddened, and lungs filled with frothy mucus; spleen large and soft, weighing fourteen ounces; mucous membrane of small intestines was of a light slate color; twelve or thirteen feet from the pylorus was a thickened and reddish patch, and below this point Peyer's patches were much thickened and reddened, and more or less ulcerated—the ulcerations being quite extensive just above the cæcum; mesenteric glands opposite diseased parts were enlarged, softened and reddened. Other organs healthy.

The systolic murmur in this case was well marked, and persistent, but no cardiac lesion was found.

TYPHOID FEVER, WITH GANGRENE OF THE LUNG.—Joseph E. Single, seaman, French, entered Oct. 10th, 1860, too delirious to give any account of himself. The captain of the ship states that he has been sick ten days, but was well on leaving the last port, which was in Maine; he has had epistaxis, and has been rather constipated. Countenance anxious and flushed; skin hot, but not dry; pulse 112; tongue heavily coated and dry; sordes on teeth; no apparent tenderness of the abdomen; some subsultus. R. Mist. febril., \mathfrak{z} i. tertiis horis. Beef tea and wine whey. 11th day of disease—Skin hot; pulse 120; tongue cracked, and covered with a thick blackish coat; no dejection. Continue treatment. 12th day—Little sleep; much delirium, getting out of bed, &c.; sweat copiously in the night; tolerably rational now; voice tremulous, and articulation indistinct; tongue moister, tremulous, and protruded with difficulty; little sordes; pulse 84, strong and fuller; two dejections; numerous rather livid spots scat-

tered over the abdomen and chest. 13th and 14th days—During the nights has been rather less delirious; tongue is still black, dry and fissured, and is scarcely protruded beyond the teeth; countenance heavy, but headache less; epistaxis recurred; pulse 76. Took roasted apple with milk. 19th day—Seems to be improving; mind not wholly clear, but he is more quiet at night; tongue has lost its black coat, and is moist; moderate appetite; some tendency to diarrhœa.

He continued to gain until the 23d day, when some cough, with sputa of tough mucus tinged with blood, was noticed. Pulse 108; tongue, thick white coat, clean at the tip and edges; dulness on percussion, and crepitant rale at base of right back. R. Syr. senegæ, ʒi.; liq. ammon. acet., ʒss., tertiis horis. There was apparent improvement after this, though the signs on auscultation remained the same, and there was still some delirium at night; the cough and expectoration diminished; there was some increase of appetite, and he began to eat potato; the pulse fell to 84, and his tongue, though coated, was moist. He took wine. 30th day—Complains of prostration; expectoration more copious and thick, of a dark-yellow color and very fœtid, odor noticed yesterday; tongue moist; pulse 100; some appetite. R. Ammon. carb., gr. v.; syr. scill. et syr. senegæ, aa ʒi. tertiis horis. There continued to be some mild delirium, especially at night; great prostration; very frequent cough with expectoration, varying in amount, and some vomiting. Five drops of the elixir of opium were added to his cough mixture, and he took brandy and wine. Percussion was flat over the lower third of the right lung, and large moist rales were heard there.

On the 34th day, Dr. SHATTUCK took charge of the wards, Dr. Mi-not's term of service having expired. At that time there was dulness on percussion at the base of the right back, from one inch below the spine of the scapula and below the sixth rib in front, and the resonance was normal over the rest of the chest; respiration rude, almost bronchial, with bronchophony and mucous râles over dull space behind; vesicular murmur elsewhere. 40th day—Appetite has improved, and he has taken soup, eggs, potato, milk punch and wine to the amount of two pints in twenty-four hours; still some mild delirium; able to be dressed; mucous and subcrepitant râles at right base, with loud bronchophony in the infra-spinous fossa, and rude respiration in the supra-spinous fossa; some râle was noticed at the left base behind. House diet. 42d day—Restless and delirious at night; pulse 116; amount and odor of expectoration increased. R. Creosot., gtt. vi.; syr. senegæ, scill. et tolu, aa ʒi.; ʒss. ter die. This was followed by improvement in the quantity and odor of the sputa, and the physical signs were heard over a smaller space. 47th day—The odor of the sputa had so far disappeared that he was moved into the ward with the other patients; still much cough, especially at night, and mild delirium. A pill of conium and creosote has been given at night. 57th day—Quite rational; sits at table with the other patients; cough less frequent, and expectoration diminished and almost wholly without odor; dulness, bronchial respiration and a coarse rale persist at the right base behind. Iron water.

Dec. 5 (62d day.)—The patient is steadily improving, though there is still cough, and the physical signs have not disappeared.

TYPHOID FEVER. Patrick C., 38 years, unmarried, Irish clergyman, entered Oct. 17th, 1860. Patient has been ailing two weeks, with catarrhal symptoms and constipation, but attended to his usual duties until the 14th, when, after preaching all day, he had a distinct chill, followed by fever and stiffness of the neck. At entrance (4th day of disease), countenance flushed; tongue covered with a white coat; no headache; no epistaxis nor tenderness of abdomen; pulse 116; sleep disturbed by dreams; marked prostration; slight cough. R. Morph. sulph., gr. $\frac{1}{8}$, nocte; liquid farinaceous diet. 5th day—Sleep troubled; mind clear; abdomen rather resonant, and no rose spots; no dejection; castor oil. R. Spts. ether. nitros., \mathfrak{Zi} ; sp. Mindereri, \mathfrak{Zss} ., tertiis horis. 6th day—One dejection; slept better; skin hot and dry; mind clear; considerable tremor of hands; pulse 100; a few rose spots on the abdomen. 7th day—Quiet day, with profuse sweating; delirious at night, talking and muttering; answers well, complaining of fulness in the head; some subsultus; two dejections; tongue moist, with more coat; pulse 109; abdomen full, not tender; three leeches to each temple; wine whey, \mathfrak{Zviii} . in twenty-four hours; omit mixture. R. Mist. febril., \mathfrak{Zii} . tertiis horis. 8th day—Head relieved by leeches; delirium more active in night; face flushed; sweating profusely; tongue dry; subsultus; pulse 120; cider, wine and water ordered. R. Pulv. Doveri, gr. x., nocte. 9th day—More quiet night; tongue moist, nearly clean at tip, tremulous; one dejection from oil. Sherry wine, \mathfrak{Ziv} ., during day. 10th day—Quiet night; mind clear; rather somnolent; tongue more dry, tremulous; some sordes; pulse 108; relished arrow-root, but dislikes the wine, which was omitted. 11th day—High fever turn yesterday evening, pulse mounting to 140; wine was resumed, and he took \mathfrak{Zij} . during the night; rested quietly; occasional muttering, and speech a little incoherent, but answers pretty well; tongue dry, brown and cracked; pulse 112; no dejection. Castor oil. 12th day—More quiet and comfortable, though still trying to get up, &c. 13th to 15th days—Became gradually more quiet and free from delirium; pulse fell to 84 on the 16th day, when he had profuse sweating, a moist tongue, and had slept well. He took beef-tea on the 21st day, and gained quite steadily. He began to sit up on the 23d day. His convalescence was disturbed by sleepless nights and copious sweatings, and he was inclined to be costive, but he was able to bear chicken and bread by the 25th day, and was discharged well on the 44th day, Nov. 26th.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 20, 1860.

THE report of cases from the Records of the Massachusetts General Hospital, which appears in the present number of the JOURNAL, forms an interesting and important addition to our usual variety of weekly medical intelligence. One, and not the least advantage to any community of a public hospital, is the opportunity it affords for the careful study and treatment of disease, without any of those obstacles to

scientific inquiry almost necessarily incident to private practice ; and it seems due to the profession at large that they should have the benefit, as far as practicable, of the results of the more recent advances in medical science, both as regards diagnosis and treatment, furnished by such institutions. To the reports from the principal hospitals of New York and Philadelphia, which are published at length in the weekly journals of those cities, these periodicals owe much of their value, and there seems to be no good reason why we should not profit by the means here afforded for similar study and observation. It is from well-reported cases that we are enabled, with the aid of our own experience, to learn the true history of diseases, "by the side of which," as Sydenham justly says, "the subtle discussions and the minute refinements, wherewith our books are stuffed full, even *ad nauseam*, are of no account." We trust to be able to publish, from time to time, such Hospital cases as may present points of especial interest, and thus supply, in part, at least, a want which has hitherto not been unfelt.

OHIO STATE MEDICAL SOCIETY.—A neat volume of 250 pages contains the transactions of this Society at its Annual Meeting in June last. The session lasted three days, and, from the contents of the report, we should infer that the profession in Ohio is not without more than the average amount of vitality.

On the second day of the session, the retiring President, Dr. Firestone, delivered his valedictory address, which is brief, conservative and able. His remarks upon medical education are well worthy the attention of the profession, and merit a wider circulation than we fear they will obtain. Reports upon the following subjects were presented by their respective committees :—Obstetrics ; Cannabis Indica ; Medical Literature ; Effects of Chloroform on the Intellectual Processes ; Obituaries ; Diseases of the Cervix Uteri ; Medical Societies ; and Insanity. These reports are printed at length, and show evidence of much care in their preparation.

During the discussion with regard to delinquent members, on the third day of the session, the following preamble and resolution, which would not be out of place on the record book of some other State Societies, were moved by Dr. Baker, and adopted :

"Whereas, it is believed by many members of this Society that sometimes membership is sought for no other purpose than to give more prominence to the applicant, and that thereafter he neglects all duties in connection with the Society, showing clearly and conclusively that the god of Mammon has more influence over his actions than the love of his profession or those confided to his care ; and, whereas, such individuals are a weight upon this Society ; therefore,

"Resolved, That any member absenting himself from the deliberations of this Society for three consecutive years without paying his annual dues, and not offering a valid excuse, be *expelled* from the Society."

On the whole, the volume before us is a credit to the State and to the profession.

ENTERTAINMENT BY THE MEDICAL FACULTY OF HARVARD COLLEGE.—The first of a series of entertainments for the season was given by the Medical Faculty of Harvard College, at the Revere House, on

Friday evening last. Not far from two hundred of the medical class were present, besides invited guests. The occasion passed off with the usual success, the guests remaining until a late hour.

OBITUARY. DR. SAMUEL VOSE.—Died, in New Portland, Somerset Co., Me., Nov. 14th, 1860, Dr. Samuel Vose, aged 68 years. Dr. V. was born in Antrim, N. H. His preceptor was Dr. Nathan Smith, of Hanover, N. H. He graduated at the Maine Med. School in 1823, and immediately commenced practice as a physician in New Portland, where he resided and continued in the practice of medicine till his last sickness. As a member of society, his deportment was such as in a remarkable degree to secure the good will and high appreciation of the entire community. Of a diffident and retiring disposition, he was averse to taking any steps that would bring him prominently before the public; and doubtless many of his friends who knew how faithfully he had used his rich opportunities for mental improvement, were disappointed at the modest, quiet and unpretending manner in which he commenced his professional course. Dr. Vose possessed, however, sterling qualities of head and heart, which more than counterbalanced what, in this age of earnest competition and active pushing ahead, can hardly be esteemed a failing or defect, but from its rareness must rather be considered a virtue, resulting from the consciousness of high qualification and merit, and a proud and noble independence of spirit. These qualities gave him, among his fellow citizens, a repute and esteem which any one, at the close of a long life, might be proud to have attained. His last sickness was extremely distressing; but in all his suffering he was reconciled to his lot. His trust in his Saviour was unshaken to the last. The community has suffered a great loss, and his family the bereavement of a kind father and amiable companion; but what is loss to friends and the world, to him is great gain. B.

DR. DANIEL MOWE.—At a regular meeting of the Middlesex North District Medical Society, Nov. 28th, 1860, the following resolutions were offered by Dr. Huntington and unanimously adopted:—

It having pleased God, in his all-wise Providence, to remove from the sphere of his duties and labors on earth our friend and late associate, Daniel Mowe, M.D., it is eminently due to his memory and his character that we, his brethren in the profession, should make some public recognition of an event so afflictive, and so widely lamented among his colleagues, and the community at large; therefore,

Resolved, 1st, That in the death of Dr. Daniel Mowe, an old and respected member of the Middlesex North District Medical Society, we have lost an associate who was ever honorable and upright in character, kind and courteous in professional intercourse, correct and exemplary in life and manners, a safe and intelligent counsellor, and an always true and steadfast friend.

2d, That inasmuch as his best working years were devoted to the interest of this community, so here his memory should ever be held precious, as that of one who, after a long and useful career, has left a bright example of an upright Christian life.

3d, That the Secretary of this Society cause these resolutions to be entered upon its records, and published in the several newspapers of this city, and in the Boston Medical and Surgical Journal; and

also that he present a copy of the same, duly authenticated, to the family of the deceased.

A true copy—attest :
Lowell, December, 1860.

HARLIN H. PILLSBURY, *Sec'y.*

METEOROLOGICAL OBSERVATIONS IN IOWA.—The meteorological register from Iowa, which we publish this week, is interesting as marking the state of the weather at a remote western point of the country ; we are indebted to Dr. Ignatius Langer, of Davenport, for this table, and he has kindly offered to send the result of his observations weekly. We hope to be able to obtain a similar register from New Orleans.

In answer to the inquiry respecting the amount of fee paid to chemical experts in cases of suspected poisoning, we would say that Dr. C. T. Jackson informs us that his fee in cases of qualitative analysis, where no poison is found, is \$50 ; where found, and the analysis becomes quantitative, \$100.

M. GROUX, the subject of the congenital fissure of the sternum, is again exhibiting himself before the medical societies of London, and appears to be creating a new interest.

SIGHT AND REASON RESTORED TO AN INSANE PATIENT BY AN OPERATION FOR CATARACT.—This interesting case is referred to in our Paris letter of this week, and the following are some additional particulars :—M. Bouisson, Professor at the Faculty of Montpellier, lately communicated to the Academy of Medicine the case of a man aged fifty, who was brought to the hospital without any particulars of his case. He was suffering from double lenticular cataract, and from complete dementia. Couching was resorted to for both eyes ; and, on the tenth day after the operation, the man said, "I can see !" these being the first sensible words he had spoken. As the sight improved, the man became more manageable. He began to give some details as to the origin of his ailments ; and, six weeks after the date of his entrance into the hospital, the patient left, fully capable of earning his own livelihood. To these facts, Professor Bouisson added some valuable remarks as to the probable connection between the restoration of sight and the return of intelligence ; and stated that he considered that "sensation stimulated the mind as electricity stimulates nervous action, the patient being at the time favorably situated for such impression." The dementia was probably not deeply rooted, and the organ of sight being that which affords the most vivid sensations, the results have been extremely beneficial as to the patient's state of mind.—*Lond. Lancet.*

PROSECUTION OF A BONE-SETTER.—A boy at Birkenhead, England, was injured, and a bone-setter was called in, who said that the thigh-bone was broken, and accordingly professed to set it. For this he received his fee. The boy became rapidly worse and died in a few days. A *post-mortem* examination showed that the bone had never been broken. On account of mal-treatment of the case, the coroner's jury rendered a verdict of "manslaughter" against the quack.—*Medical and Surgical Reporter.*

MONTREAL GENERAL HOSPITAL.—Dr. Craik, Demonstrator of Anatomy in the Faculty of Medicine of McGill College, has been appointed one of the Attending Physicians, in place of Dr. Sutherland, resigned, and placed upon the Consulting Staff. We have no doubt that Dr. Craik, who for many years performed the duties of House-Surgeon to the Hospital, will discharge his trust with his wonted fidelity.—*British American (Montreal) Journal*.

PROF. B. F. BARKER recently performed the Cæsarean operation at Bellevue Hospital, on account of a contracted pelvis, the anterior-posterior diameter of the superior strait being only two inches, the cavity of the sacrum filled with a bony tumor. The child was removed alive, and is now living. It weighed nine pounds. The mother died the fifth day after the operation.—*Amer. Med. Monthly*.

At a meeting of the Southern Students of the New York University, no less than fifty-seven decided to return at once to their Southern homes.—Dr. J. H. Butler, Resident Physician of the Baltimore Infirmary, has been appointed Demonstrator of Anatomy in the University of Maryland.—Of the troops of King Francis in Gaeta, more than 2,500 have been attacked by ophthalmia.—Prof. Eve reports a successful case of staphyloraphy with the canulated needle.—Dr. Forbes Winslow has been elected President of the Medical Literary Society of London.—It is stated, on good authority, that the visit of the Empress of the French to Scotland is for the purpose of consulting Dr. Simpson.—Mr. Critchett has resigned his share of the chair of surgery at the London Hospital.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, DECEMBER 15th, 1860.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	30	45	75
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	38.1	36.8	74.9
Average corrected to increased population, . . . . .	..	..	83.6
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
20	3	5	2	0	0	0	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	29.985	Highest point of Thermometer,	35°
Highest point of Barometer,	30.598	Lowest point of Thermometer,	1° 5'
Lowest point of Barometer,	29.350	General direction of Wind,	N.W
Mean Temperature,	22°.92	Whole am't of Rain in the week	0.684

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

		BAROMETER.					THERMOMETER.				SNOW.		Mean Amount of Cloud. 0 to 10.
		7 A.M.	2 P.M.	9 P.M.	Mean Height.	Highest Point.	7 A.M.	2 P.M.	9 P.M.	Mean Height.	Time 48 m.	Mean state.	
Monday, Dec. 3,		29.37	29.40	29.49		Lowest 26	27	24					
Tuesday, " 4,		29.55	29.55	29.55		23	25	21					
Wednesday, " 5,		29.46	29.37	29.26		12	21	24					
Thursday, " 6,		29.17	29.15	29.24		25	36	29					
Friday, " 7,		29.23	29.21	29.35		29	38	33					
Saturday, " 8,		29.70	29.78	29.79		29	36	29					
Sunday, " 9,		29.68	29.45	29.20	29.40.	28	32	33					

BOOKS RECEIVED.—The True Physician. An Anniversary Discourse delivered before the New York Academy of Medicine, Nov. 7, 1860. By John Watson, M.D., President of the Academy.

Deaths in Boston for the week ending Saturday noon, December 15th, 75. Males, 30—Females, 45.—Asthma, 1—inflammation of the bowels, 1—congestion of the brain, 2—disease of the brain, 1—inflammation of the brain, 2—bronchitis, 1—cancer, 3—consumption, 20—croup, 3—debility, 2—diarrhoea, 1—puerperal disease, 1—dropsy, 4—dropsy of the brain, 3—drowned, 1—epilepsy, 1—bilious fever, 1—scarlet fever, 5— hæmorrhage, 3—disease of the heart, 2—disease of the liver, 2—congestion of the lungs, 3—inflammation of the lungs, 2—marasmus, 1—old age, 1—paralysis, 1—premature birth, 1—teething, 1—ulcers, 1—unknown, 4.

Under 5 years, 24—between 5 and 20 years, 6—between 20 and 40 years, 19—between 40 and 60 years, 17—above 60 years, 9. Born in the United States, 52—Ireland, 20—other places, 3.

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No. 22.

OBSERVATIONS UPON A MORBID CONDITION OF THE NECK OF
THE BLADDER NOT DESCRIBED BY SURGICAL AUTHORITIES.

BY D. D. SLADE, M.D., BOSTON.

[Continued from page 414.]

CHILDREN who suffer from incontinence of urine may be arranged under three classes. In the first class, the affection is constant and is due to some special cause; in the second, it is intermittent in its character, occurring during the day as well as in the night; while in the third class, it is nocturnal only. Now, contraction of the neck of the bladder plays its part, to a greater or less extent, in all these three classes, but more especially in the first, where the affection is not intermittent. In the second class, the urine passes off involuntarily, not only during sleep, but also during the day, the patient not unfrequently finding his clothes wet, without being conscious of the escape of urine from the bladder. He is at all times obliged to micturate more frequently than natural, and when called upon can scarcely resist the desire for a moment. This form of incontinence is intermittent, the subject of it being at times almost entirely rid of the complaint.

Cases of this description occur most frequently among children of a lymphatic temperament, and who require a tonic treatment. They even appear, in many cases, to be hereditary, as we have seen several members of a family afflicted, as were their parents before them. This hereditary tendency seems also to have its influence in the nocturnal form.

The cases coming under the third class do not always constitute a malady, properly speaking, but often merely a habit. Thus we may separate children suffering from nocturnal enuresis only, into three categories. The first is made up of those who are too lazy to rise from bed to satisfy Nature at her first bidding. The second, of those who sleep so soundly that the sensation which precedes the desire to urinate is not sufficient to awaken them—the

neck of the bladder is the only portion which *feels*, so to speak, and which, accustomed to obey this sensation, opens mechanically and suffers the urine to pass without the brain being warned. The third is made up of those who dream that they are performing the act under the usual circumstances, that they are urinating against a wall, or into a vessel, &c.

If we examine the urine in these cases of incontinence, we sometimes find it pale colored and of rather low specific gravity, but most frequently neither the quality nor the quantity of this secretion seems to be at fault, so that we cannot ascribe the affection to this source.

Most writers on the subject of incontinence of urine in children ascribe the affection to a morbid irritability of the neck of the bladder, or to an exaltation of the natural sensibility of that part, often unaccompanied by any appreciable change of structure. This morbid irritability may depend upon a variety of causes, and it may be direct or sympathetic. In the latter case, it may depend upon sympathy with a diseased condition of the rectum, vagina, uterus, or kidneys, &c. But when the cause is direct, in the majority of cases we contend that it is owing to a permanent contraction, more or less well marked, of the muscular fibres of the neck of the bladder. Accordingly we can easily explain the beneficial effects of belladonna, when employed in the treatment of these cases, by its power to relax the muscular fibres, and by the influence which it exerts over the nervous system. By the relaxation of the muscular fibres, a morbid condition which is sufficient to keep up a constant irritability about the neck of the bladder is done away with; by the influence which it exerts upon the system generally, some peculiar diathesis, or at least constitutional cause, upon which the contraction itself may depend, is overcome.

In our own practice, we have met with signal success in the treatment of enuresis in children by the use of belladonna, and lately we have the results of a series of carefully conducted observations upon this affection, by Dr. Hewson,* of New York, which are at once conclusive and satisfactory.

Dr. H. founds his observations upon 63 cases, which were under his constant control and supervision during a period of five months, in a House of Refuge. He cites the influence of the urinary secretion, diet, atmosphere, masturbation, and general causes in the production and maintenance of this affection. Of these causes, the influence of the atmosphere seemed the most decisive—a sudden fall in the temperature having the effect to increase the number of those who wet the bed. But it is in the results of the treatment as conducted by Dr. H., that we find the most conclusive arguments in favor of our theory. After repeated and carefully-conducted trials of a variety of drugs, and of various therapeutic measures,

* The American Journal of Medical Sciences, October, 1858.

he found what might be almost considered a specific in the employment of belladonna. So that it certainly does not seem irrational to attribute the majority of these cases to some local cause, which local cause we find in the contraction of the muscular fibres at the neck of the bladder; the belladonna alone possessing the necessary power to overcome this contraction, or at least being best adapted to this purpose.

We have spoken of an hypertrophied condition of the submucous tissues at the lower portion of the urethro-vesical orifice as a consequence and complication of contraction. This condition involves principally that portion which is termed the uvula, and is due, in the first place, to an hypertrophy of the muscular fibres which associate the ureters with the urethra, at this particular point, and to a consequent abnormal development of the mucous membrane, and the submucous tissue—a condition, which at once shows that there has long been an undue amount of expulsive effort on the part of the bladder.

It is well known that several French writers describe the bladder as being provided at its orifice (urethro-vesical) with two lips, one situated anteriorly, and the other posteriorly. M. Mercier speaks of an hypertrophied condition of the inferior or posterior lip or “valvule,” as the result of undue expulsive effort of the organ. So again this very state is described by other authors, particularly by Mr. Guthrie, as constituting a “bar” at the neck of the bladder, without any prostatic disease being present. He says, “An elastic structure exists at the neck of the bladder, and may be diseased, without any necessary connection with the prostatic gland.”

The term “bar” and “bar-like ridge,” at the vesical neck, has been used to describe a variety of affections of this part. We would simply describe an obstruction depending upon an hypertrophied condition of the tissues situated at the lower portion of the urethro-vesical orifice, the result, as we have said, of contraction.

There is another complication attending contraction of the neck of the bladder, which is not unfrequent, and which consists in a contracted condition of the sphincter ani. In many cases, we even find that the contraction is not confined to these muscular fibres, but that it also attacks the muscles of the perinæum. Some patients complain more of these symptoms than of any trouble at the neck of the bladder.

The anus becomes the seat of acute, lancinating pains, which are exasperated on pressure; there is obstinate constipation, and great pain on going to stool. This constitutes the ano-vesical neuralgia of some authors.

Velpeau, in speaking of this condition, says, “There is a very singular malady, which appears to me to have its seat at the neck of the bladder, much more even than in the anus, and to depend,

frequently, upon a hemorrhoidal condition of the lower portion of the rectum."

Romberg, also, in the chapter on "Spasm in the range of the nerves supplying the muscles of micturition," says, under the head of *Spasm of the bladder*, *Dysuria spastica*, "There is a frequent and violent desire to evacuate the contents of the cavity, with a painful sense of pressure in the vicinity of the outlet of the bladder, resembling the symptoms of colic. The less urine is discharged, the more the desire to micturate, and the pain increases, and these symptoms extend to the neighboring muscles of the anus and perinæum, whilst the abdominal muscles are not affected."

Again, under "Spasm of the Sphincters" he says, "There is generally a sudden retention of urine, accompanied by a violent constricting pain at the lower vesical region. The action of the abdominal muscles is increased in order to surmount the difficulty. The muscles of the anus are not unfrequently involved in the spasm. If a sound is introduced, it meets with an impediment at the membranous portion of the urethra," &c.

Diagnosis.—In addition to the pain and difficulties attending micturition, of which we have spoken, and in addition to the other physical signs, it is by local explorations, by the introduction of instruments, that we are to establish the presence of contraction of the neck of the bladder.

When we introduce a bougie or catheter into the healthy urethra, and push it very gently along the canal, we meet with a slight resistance, but a resistance which yields almost immediately. In contraction, on the contrary, the resistance is similar to that afforded by a stricture, although, of course, it is not so great or well marked. Moreover, that peculiar grasping of the instrument which we meet with, when it is fairly engaged in the stricture, is wanting.

After a moment's cessation, this resistance yields, and the instrument is allowed to pass quite freely as far as the urethro-vesical orifice, where a similar resistance is met with, which also soon yields, the patient experiencing during this time a burning sensation in the parts. When the bougie or catheter is withdrawn, the resistance is found to be much diminished—in fact, is scarcely perceptible.

It must be confessed that in many cases it requires a certain delicacy of manipulation, which the constant introduction of instruments into the urethra can alone give, to detect the presence of contraction. Still, in the exploration of the urethra in these cases, we are not so liable to be misled, as in those where the symptoms point to stricture alone. Undoubtedly, the most common impediment to the free passage of a bougie or catheter, apart from stricture, is the enlargement of the lacunæ of the urethra. Pouches are thus formed, into which the point of an instrument, particularly if it be a small one, may readily enter, and its on-

ward course be interrupted. This condition is, of course, most frequently met with, where stricture is present, but it is sometimes found as the consequence of long-continued irritation of the mucous membrane, where there does not exist the least reduction in the calibre of the canal. These lacunæ, as is generally well known, lie on both the upper and lower aspects of the urethra, but particularly on the lower.

Another impediment to the passage of an instrument consists in an hypertrophied condition of the natural folds or rugæ of the mucous membrane. These sometimes become so enlarged and thickened, that the point of a moderately-sized instrument cannot fail to hitch against them, although, at the same time, they may not produce any perceptible obstruction to the flow of the urine. The deception produced by the presence of these rugæ is the greater, inasmuch as it is in the membranous and adjacent portion that they chiefly abound.

Again, in the prostatic portion of the urethra, a complete stoppage may be given to an instrument, although there may be no contraction or any enlargement of the glands. The prostatic and ejaculatory ducts are sometimes considerably dilated, and the sinuses on each side of the verumontanum become deepened, so that it is evident that the point of a small instrument may become entangled in them.

The "uvula vesicæ" may also become enlarged and elevated, quite independent of contraction, in such a way as to offer direct opposition to the introduction of an instrument into the bladder.

These deceptive impediments to the formation of a ready and satisfactory diagnosis are, however, removed by making use, in the explorations of the urethra, of a full-sized instrument, the kind and description of which we shall designate when we speak of the treatment of contraction.

The most frequent complication attendant on organic stricture, is unquestionably spasm, and there are many cases of contraction where this condition is present in a very marked degree. In almost all cases of organic stricture, spasm is apt to be excited by exposure to cold, wet, or much fatigue, or by too great indulgence in the pleasures of the table. In some instances, however, the proneness to spasm is so strong as to be brought on by the most trivial causes, and it would sometimes appear to occur without any assignable cause. The same may be said of the spasm attendant upon contraction.

In establishing the difference between the spasm attending contraction and that attending organic stricture, we must be governed almost entirely by the history of the case. So, also, in distinguishing between the spasmodic action accompanying contraction, and that which may be termed pure spasmodic stricture without any appreciable local lesion, in addition to the history we must take into consideration the extreme rarity of this latter condition.

That such cases do sometimes occur, however, being examples of what may be termed "centric" spasmodic action, the irritation causing it having its origin in the nervous centres, there can be no question. One such case is reported by Mr. Guthrie, where a gentleman was twice seized, over a period of several years, with retention of urine from spasmodic action of the compressores urethræ, without there being the slightest evidence of irritation in the urethra. Those cases, however, in which violent spasm of the compressores urethræ arises from a long-continued effort to resist the evacuation of the contents of the bladder, should not be viewed as examples of pure spasmodic stricture.

Besides the history and general symptoms of the case, another important difference to be borne in mind between spasmodic and organic stricture consists in this, that the former admits the passage of both large and small instruments, although the forced dilatation may be accompanied by more or less pain, while the latter will admit only those instruments which are in relation to its calibre.

Finally, it is the more important to arrive at a true diagnosis of this affection, from this very fact that it so closely simulates organic stricture. When, therefore, a patient presents himself in early, adult life, or even in a more advanced period, with certain symptoms, such as we have described, symptoms which are persistent, and which have come on and continued for a longer or shorter period, without any very evident cause, it behooves us to be on our guard lest we pronounce the affection, even on examination by exploration, to be one of stricture or of calculus of the bladder. In most of these cases, on inquiry, we shall find that the mind of the patient is more or less distressed; that an examination has been made, that the introduction of the instrument caused a good deal of suffering, especially at the neck of the bladder, and that he has been told that he has a stricture, or certainly a calculus.

Now, we repeat, not only a careless practitioner, but even a good surgeon may be led into error unless the greatest care is taken to arrive at the truth. We have, at the present moment, under our care a very striking instance of a want of discrimination in the treatment of these cases. A merchant, of about 45 years of age, was sent to us for examination and diagnosis. On inquiry, the following was the history. About four years ago, he first perceived an irritability about the bladder, causing him to rise at night. The stream of urine is now rather smaller than natural, and not so well thrown out. He is obliged to strain in order to commence, and just at the moment of micturition there is a sharp pain at the neck of the bladder. Both during and for a few moments after micturition, there is pain, which the patient refers to the fossa navicularis; this pain is also felt at times in the anus, and perinæum, and above the pubes. Has suffered from attacks of rheumatism. Otherwise, health is pretty good. This gentleman

had consulted two or three medical men, who had examined him, and had introduced instruments into the urethra. He had been informed that he was laboring under stricture, and that probably he had calculus also, although none could be detected. The mind of the patient was a good deal distressed.

From the history of the case, we at once judged that there was contraction of the neck of the bladder, and on a careful exploration of the urethra and bladder, we detected neither stricture nor calculus, but a certain amount of resistance at the membranous portion of the canal. Suffice it to say, that a treatment adapted to the removal of this contraction was immediately commenced, and is still pursued, with an immediate mitigation of all the previous symptoms. Micturition is now well performed, the irritability of the bladder has passed, and the mind of the patient is bright and hopeful.

In cases like the one just mentioned, if the patient be convinced that he has stricture or calculus, particularly if his fears have been corroborated by the opinion of the surgeon, there can be little doubt that all the symptoms, and even the affection itself, may be greatly aggravated by the mental influence. We have already spoken of nervous agency in the production of contraction of the neck of the bladder.

(To be continued.)

THE PATHOGENESIS OF CHLOROSIS.

[Translated from the "*Archiv. der Wissenschaftlichen Heilkunde*," vol. iv., part 3.]

It is known that fewer colored blood-corpuscles are found in chlorotic than in healthy blood: while in the latter one cubic millimetre contains from four and a half to five millions, the number in the former falls as low as to two and a half millions in the same quantity. It is known, too, that the colored blood-corpuscles contain iron, and that chlorotic blood is therefore deficient in iron; and further that the deficiency of chlorotic blood in colored blood-corpuscles (and in iron) is the consequence of an impaired state of the formative functions (*Anamorphosis*), and not the result of increased waste (*Katamorphosis*); for the urine of chlorotic patients is poor in solid materials. Lastly, it is known that the small amount of iron which the healthy organism appropriates to itself from the most varied diet—as from flesh, milk, eggs, water, &c., fully suffices for the needs of the system; especially as in the healthy state the bile is the only secretion that contains iron, and yet the ferruginous contents of the bile are in great measure re-absorbed from the alimentary canal. How, then, is the occurrence of chlorosis in a healthy girl to be explained? She receives still the same ferruginous articles of food; it cannot, then, depend upon a want of iron, or upon a withdrawal of iron from the system, for these conditions do not exist; and

yet the girl, with a constant supply of the same amount of iron, becomes chlorotic, i. e. there is a failure in the formation of red blood-corpuscles. What is this owing to? The vitalist, who ascribes to the sanative power of nature a Prometheus-like contrivance and action in the preservation and restoration of health, is compelled to have recourse to a supposed error or caprice in regard to the direction that this sanative power takes, in order to explain the occurrence of chlorosis. But I am glad that the time is past in which such phrases and terms are deemed satisfactory, and in which it was fancied that an already obscure subject was to be explained by something utterly unintelligible. Now when we ask for a substantial reason as to why chlorosis should occur with a sufficient supply of iron, the theory hitherto held is at a loss for an answer. The theory, to be sure, contains the truth, but it does not contain the whole truth; a link is wanting in the account of the origin of the disease. The organism, in fact, lacks the power to apply the iron furnished it to the formation of hematine. Upon what does this want of power depend? We find the answer to this question in a discovery of Lehmann. Physiological chemistry has, up to this time, made the various excretions the objects of its researches, and especially the urine. Its results therefore, at best, have been of interest only as means of diagnosis. But where it has more thoroughly investigated the changes of tissue, fruitful results are to be found for practice, for pathology, and for therapeutics. I may mention, for example, the value of that beautiful discovery of Halwachs and Kühne, that benzoic acid in its passage through the liver is converted into hippuric acid by the decomposition of the glycocholic acid. From this Falck inferred, that benzoic acid must be almost a specific against the condition known as icterus; and experience has proved it to be so. In like manner, for the explanation of the origin of chlorosis, I will show the value of Lehmann's discovery that hematine is a glucoside.

We know from Bernard that the liver is a sugar-secreting organ; and we know, also, that in disease the secretions of the different glands vary in amount, appearing at one time excessively increased, and, at another, diminished or even entirely suppressed. There is no conceivable reason why this should not be the case with the secretion of sugar in the liver; indeed, we know already that this secretion is increased in many forms of diabetes mellitus, and that in all febrile diseases it is entirely suspended. We will now suppose, for a moment, and the supposition does not stand at all in our way, that the sugar-secretion of the liver has for some time been diminished; what will be the first consequence of such diminution? Inasmuch as hematine requires sugar for its formation (for, according to Lehmann's beautiful discovery, it is like salicin, phloridzin, tannin, &c., a combination of sugar, or a glucoside), therefore, when there is a failure in the supply of liver-sugar, the formation of the coloring matter of the blood will not be accom-

plished, even when the amount of iron is sufficient as before; and consequently the construction of colored blood-corpuscles will be stopped; or, in other words, the chlorotic condition will originate. The essential cause, then, of the occurrence of chlorosis is a deficiency or cessation of the secretion of liver-sugar; the fact that the supply of iron is not used in forming hematine, is only a consequence of the former circumstance, and is not the real cause of the disease.

If the supposition thus made be true, viz., that chlorosis depends upon a defective secretion of sugar by the liver—a supposition, the correctness of which has, we think, been proved analytically and synthetically—three inferences may be drawn from it:

1st. Chlorosis is to be cured by means of sugar, which supplies what is wanting through the failure of the liver.

2d. Chlorosis is to be treated by every means which can restore the sugar-making function of the liver to the normal condition.

3d. The large doses of the preparations of iron with which chlorosis is empirically treated, effect the cure, not, as is universally believed, by supplying the requisite iron to the body, but because these large doses operate by promoting and increasing the secretion of sugar in the liver.

1. If the deficiency of liver-sugar is to be supplied by the ingestion of sugar, it must be a sugar like that of the liver, i. e. grape, and not cane-sugar. For though the healthy organism may be able to convert the cane-sugar into grape-sugar, yet the question is, whether the impaired digestion of chlorotic patients is equal to the task. Does grape-sugar, then, cure chlorosis? In northern Schleswick, where I practised medicine for twelve years, and, as I have been told, in many parts of Hanover, honey is a popular remedy for chlorosis; and I can attest its efficacy from my own experience. Even though the honey may contain a small portion of iron, yet this is not the curative agent, for other articles of diet which contain just as much iron, are entirely powerless. As honey, by long-continued use, in large doses, may produce flatulence, acidity, colicky pains and diarrhœa, it may be well to combine it with suitable correctives, as the bitters, carminatives, &c., and to take it fasting in the morning in the dose of a tablespoonful.

2. We are still entirely in the dark as to the means which increase or diminish the secretion of liver-sugar. There is here a wide field open for inquiry into the powers of remedial agents. But, little as we know with regard to this subject, we are yet acquainted with one agent which promotes the secretion of sugar, and we find it efficacious in the treatment of chlorosis; it is nothing else than cold water. It was shown some years ago, by Dr. Petters, in the "*Prager Vierteljahrschrift*," that the secretion of sugar in diabetes is increased by drinking cold water copiously;

and the experience of every hydropathic institution proves that chlorosis may be cured by the same means.

Many physicians regard the free use of cold water as a means which acts only by powerfully increasing the waste of tissue; and therefore they give no credit to the assurances of hydropathic physicians, that chlorosis is cured by this means; for, according to their theoretic views, it must aggravate the disease.

In chemical processes, water at one time plays the part of an acid, at another that of a base; it has, also, a two-fold action as a remedy. Acting in one way, it greatly increases the waste of tissue [Katamorphosis]; acting in another, it promotes its formation [Anamorphosis]. Indeed, a glance at the development of the foetus throws light on the action of water in the organism, and may remove some rusty prejudices. Schlossberger has shown that in the earliest condition of foetal life, the blood is of all the parts poorest in water, while after birth it is richest. Since, then, the younger the foetus is, its vegetable life is the more energetic, and the formation of tissue is more active than its waste, it is evident that this formation is increased in activity by a large amount of water.

3. Whether the last of these three inferences will be verified, the future will show. What is chiefly needed in the inquiry is an accurate method of investigation, in order to measure exactly the variations observed in the secretion of liver-sugar after the employment of different agents. When such a method is found, then the question as to the effect of iron will be easily decided.

These remarks are not yet sufficient to prove beyond all doubt that a failure in the secretion of liver-sugar is the immediate cause of the disease; yet I think I have shown the insufficiency of the prevailing opinions on the subject to explain the morbid process, and on the other hand the high probability of the new theory. The future may give sentence in the matter. Should every doubt be finally removed, it would then be shown that chlorosis and diabetes mellitus are, in their essential nature, diametrically opposite morbid processes; and experimental pathology might one day succeed in producing chlorosis artificially, as has been done in the case of diabetes, so that the means would thus be found for the radical cure of diabetes.—*Maryland and Virginia Med. Journal.*

MORMONISM, IN ITS PHYSICAL, MENTAL AND MORAL ASPECTS.

THE following is a brief extract from the sanitary report of Assistant Surgeon Bartholow, one of the medical officers attached to the army corps which passed the winter of 1857-58 in Utah.

"The Mormon, of all the human animals now walking this globe, is the most curious in every relation. It would be quite

beyond the scope of this report to say anything of the political and religious aspects of Mormonism; but as a great social solecism, seriously affecting the physical stamina and mental health, it is full of interest to the medical philosopher. Isolated in the narrow valleys of Utah, and practising the rites of a religion grossly material, of which polygamy is the main element and cohesive force, the Mormon people have arrived at a physical and mental condition, in a few years of growth, such as densely-populated communities in the older parts of the world, hereditary victims of all the vices of civilization, have been ages in reaching. This condition is shown by the preponderance of female births, by the mortality of infantine life, by the large proportion of the albuminous and gelatinous types of constitution, and by the striking uniformity in facial expression and in physical conformation of the younger portion of the community. The 'peculiar institution' is practically upheld by the older men, the elders, bishops, apostles, and prophets; and so eager is the search for young virgins, that notwithstanding the preponderance of the female population, a large percentage of the younger men remain unmarried. To sustain the system, girls are 'sealed' at the earliest manifestations of puberty, and I am credibly informed that means are not unfrequently made use of to hasten the period. The activity of the reproductive function, as a rule, is not diminished by polygamy; on the contrary, the women are remarkable for fecundity; but in the harems the proportion of children arriving at maturity is much less than in the rural districts of our country. An illustration of this fact is afforded by the results in that chief of polygamists, Brigham Young's case. He has, at least, forty wives. A large number of children have been born to him, a majority of whom died in infancy, leaving twenty-four, according to the most reliable accounts. These forty women in monogamous society, married, would have probably one hundred and sixty children, two thirds of whom, under hygienic circumstances equally favorable, would have been reared. In Brigham Young and his wives, we have presented the most favorable conditions for successful polygamy possible in Mormon society, yet, in this instance, the violation of a natural law has been speedily evinced. One of the most deplorable effects of polygamy is shown in the general weakness of the boys and young men, the progeny of the 'peculiar institution.' The most observant Mormons cannot hide from themselves the evidence of these sad effects. One of their saints, Heber C. Kimball, in recent sermons, has adverted to this sexual debility, but, with a singular blindness, attributed it to a vicious style of dressing. The sexual desires are stimulated to an unnatural degree at a very early age, and as female virtue is easy, opportunities are not wanting for their gratification. It is a curious fact, that Mormonism makes its impress upon the countenance. Whether owing to the practice of a purely sensual and material religion, to the pre-

mature development of the passions, or to isolation, there is, nevertheless, an expression of countenance and a style of feature, which may be styled the Mormon expression and style; an expression compounded of sensuality, cunning, suspicion, and a smirking self-conceit. The yellow, sunken, cadaverous visage; the greenish-colored eyes; the thick, protuberant lips; the low forehead; the light, yellowish hair; and the lank, angular person, constitute an appearance so characteristic of the new race, the production of polygamy, as to distinguish them at a glance. The older men and women present all the physical peculiarities of the nationalities to which they belong; but these peculiarities are not propagated and continued in the new race; they are lost in the prevailing Mormon type.

"If Mormonism received no additions from outside sources, these influences continuing, it is not difficult to foresee that it would eventually die out. The increase of population, independently of large annual accessions from abroad, has not been co-equal with the increase in other portions of our country. The results of polygamy here are not to be compared, without some limitations, to the results of the same institution elsewhere: its decadence must follow more speedily. In eastern life, where it has been a recognized domestic institution for ages, women are prepared for its continuance, and do not feel degraded by their association with it. The women of this Territory, how fanatical and ignorant soever, recognize their wide departure from the normal standard in all Christian countries; and, from the degradation of the mother, follows that of the child, and physical degeneracy is not a remote consequence of moral depravity.

"Mormonism, considered in a relation purely sanitary, presents some interesting features. The Mormon theology contemplates the cure of disease by miraculous interposition; hence the disciples of the healing art are not held in much estimation. The church authorities are exceedingly jealous at an attempt to cure by ordinary therapeutics, and denounce from the pulpit any invasion of their special province. Though they claim for the "laying on of hands" (*cheirapsia*) wonderful efficacy, the number of deformities, the result of malpractice, to be seen in any of the populous towns, rather indicates a necessity for the use of carnal means. The art of surgery is at a low ebb. Epidemic erysipelas of a virulent form is reported to prevail in this Territory, but, thus far, no cases of the disease have fallen under the observation of the medical officers serving with this army. I have reason to believe that 'erysipelas' is a conventional term applied to various dissimilar affections, as rheumatism, erythema, anthrax, &c."

Bibliographical Notices.

Statistical Report on the Sickness and Mortality of the Army of the United States. Compiled from the Records of the Surgeon-General's Office, embracing a period of five years, from January, 1855, to January, 1860. Prepared under the direction of Brevet Brigadier General THOMAS LAWSON, Surgeon-General U. S. Army, by RICHARD H. COOLIDGE, M.D., Assistant Surgeon U. S. Army. Washington : Executive Document. 1860.

THERE is no accession to our national medical literature more important and instructive than our army medical reports, comprising, as they do, accurate statistical accounts of the sickness and mortality in the Army of the United States, and thus forming a basis for future generalization, as regards the various forms in which disease reveals itself in the diverse climates, and under the widely different influences to which different portions of our territory are subjected. The character of the patient, it is true, as well as the unhealthfulness of the stations often necessarily selected for the troops, and the unpardonable and disgraceful accommodations to which they are too often obliged to submit, are such as considerably to qualify the conclusions from these carefully-drawn statistics, particularly with reference to climatic and telluric influences on disease. But yet sufficient is presented to form a most valuable body of medical information, prepared, as it is, by gentlemen thoroughly educated and accomplished in medicine and in all the kindred sciences.

The first statistical report on sickness and mortality in the Army, was compiled under the direction of the present Surgeon-General Lawson, and comprised a period of twenty years, from January, 1819, to January, 1839; the second, embracing a period of sixteen years, brought the statistical record down to 1855, when the present record commences, embracing the subsequent five years—that is, from January, 1855, to January, 1860. Included in the abstracts and tables of the present report are the aggregate results for each region, as given in the report of 1856, thereby enhancing the value of the statistics, by extending them over a period of twenty-one years.

Those familiar with the exact boundaries of the United States will remember that it resembles in form a somewhat irregular parallelogram, extending from north to south through about twenty degrees of latitude, and measuring from east to west not far from fifty degrees of longitude—that is, from one sea to the other. It will be noted also that this extended area is intersected by two ranges of lofty mountains, running north and south, and dividing it into three unequal portions—the central, or *intermontane* one being considerably broader than the Atlantic and Pacific slopes. Through this valley, and also running north and south, is the great river, which, fed by innumerable tributaries, drains this vast tract, and subdivides it into two unequal portions. These four grand geographical divisions differ more or less widely in their telluric and meteorological characteristics, and hence in their influence upon health and disease. If we now divide this whole territory transversely, by lines drawn at the 35th and 40th parallels of latitude, we have a northerly, central and southern strip, each having pretty distinct climatological features. These divisions, as laid down in the Army Report, comprise, 1st, all the territory be-

tween the 30th and 35th parallels : 2d, that between the 35th and 40th ; and, lastly, all north of the 40th. If we now exclude the Pacific Slope, we have nine divisions, formed by two lines running north and south ; and two in the direction from east to west. These nine regions are designated as the Northern, Middle and Southern Atlantic ; Northern, Middle and Southern Interior East ; Northern, Middle and Southern Interior West. An additional one is superadded in the Northern Division, called the region of the Lakes. We have, then, ten regions ; which, with that of Florida, Texas, New Mexico, California, Oregon and Utah, each of which is considered separately, make in all sixteen geographical divisions or regions. These regions contain one or more military posts ; the statistical and topographical details of which constitute the body of the main report. These details comprise the number of men stationed at any particular post ; the number treated as patients, and the number of deaths ; also the ratio of cases of sickness and mortality per 1000 men, from which we are able to infer the relative healthfulness of the various stations and regions. Attached to these reports are tables presenting the nature of the diseases treated, with their relative mortality, these being divided into three general classes : 1st, Fevers ; 2d, Diseases of the Digestive System ; 3d, Diseases of the Respiratory System. Besides these statistical details, valuable observations are given on the treatment which has been found most effectual in certain diseases, as well as much interesting information on the character of the climate, people and productions, animal, vegetable and mineral, of the newer portions of the country. Added to all, is a series of meteorological tables, which must be considered as constituting not the least important part of the work before us.

To give anything like a just exposition of the mass of valuable material here collected, would be impossible in this place ; but there are a few points of especial interest which it may be interesting to note.

By referring to the tables, we find that the smallest relative number of cases of phthisis occurred, for the most part, in dry and elevated regions of the country, as in the stations in Utah, New Mexico, and in the Northwest, these being situated at an altitude of from 1000 to 7000 feet above the sea level. The immunity from this disease was also quite marked in Florida, where the altitude does not exceed 30 or 40 feet, and where the stations are in the immediate vicinity of the sea. This can only be accounted for by the influence of malaria, and the equableness of the temperature, the thermometrical range not exceeding, in some years, 30 degrees. Surgeon McParlin remarks that for pulmonary invalids he has seen no better position than that afforded at Fort Dallas. The rate of cases to 1000 was 2.7. So, at Fort Randall, in Nebraska, Dr. Madison states that the climate is certainly unfavorable to the development of phthisis. In all the regions referred to, with the exception of Florida, the air is dry, and the quantity of rain during the year considerably below the average. These facts tend to confirm the observations of Fuchs and others in Europe, and Bowditch in our own country, all of whom infer, from collected data, that this disease is most prevalent on the level of the sea, and decreases with the increase of elevation to a certain point. There is certainly reason, also, to conclude, from these statistics, that the influence of malaria in the blood is antagonistic to a tubercular condition, thus confirming the original discovery of Wells as to the antagonism of ague and

phthisis. The largest number of cases occurred in the Southern Atlantic region, being in the ratio of 7.9 per thousand. The cases on the coast of New England were 4.6.

With regard to intermittent fever, we find that this disease prevailed to the greatest extent in Florida, where it was noticed that phthisis was least prevalent, there being no less than 1809 cases out of 2000, 969 being of the quotidian, and 840 of the tertian type. The fewest cases occurred at West Point.

Rheumatism prevailed most in New Mexico and Northern California, and least in Southern Texas.

A disease which seems to have been peculiarly prevalent in the North Western Interior, was scurvy. During the winter (1856-7), the whole garrison at Fort Randall were more or less affected with this disease, and the troops at many of the stations, especially at Fort Laramie, seem to have suffered from its effects.

The observations of Assistant Surgeon Johns on this affection, are important, as based upon a large experience. He considers, with others, that scurvy is a blood disease, with certain alterations of tissue, resulting primarily from an imperfect supply and ratio of supply of the three kinds of materials for the body, viz., *azotized, non-nitrogenous, and earthy*; the *point de depart* being the want of *fresh vegetable matter*. Secondly, this being the primary cause, which may, of itself, be sufficient in certain cases to develop the disease, any depressing cause, as exposure to cold, fatigue, bad ventilation and bad food, and particularly too great a preponderance of salted meat, may act as the exciting cause. Thirdly, With respect to treatment, he finds citric acid and potash to be inefficient remedies; the first step being to procure *fresh vegetable matter*. He advises stimulant and tonic remedies, fresh air and nutritious food. In other words, the object is to supply those materials, the want of which has caused the disease.

The influence of salted meat as a depressant, he attributes to the loss of *kreatine*, dissolved out by the brine, and which, as Dr. Ure remarks, has a singular connection with muscular energy. The fact that the Indians and voyageurs rarely suffer from this affection, he regards as partly owing to their use of *jerked*, instead of *salted* meat—the former simply losing its watery portions in the process of drying, while the latter loses one of its most essential principles. In the treatment, he found desiccated vegetables unavailing, and was forced, when potatoes, the best antiscorbutic, were not to be had, to depend often upon the juice of the cactus. The wild artichoke, wild celery and water cresses were also found admirable remedies. He prescribed the cactus juice in the dose of a tumbler full, mixed with a gill of whisky. In alluding to the total inefficacy of citric acid, he instances the fact of the existence of scurvy amongst the lime groves and at Fort Dallas, Florida, where the parade was covered with lemons, limes and oranges. That mental influences play a part in the development of this disease, seems apparent from the fact of its absence in Utah, where everything, but a depressed condition of the mind, favored its production. The excitement attending the march through a new country, with the prospect of a fight with the saints, contributed not a little to that healthful state of body incompatible with the development of this affection.

The diseases which seemed to predominate in the army elsewhere, as may have been expected, were diarrhœa and catarrh. The former

prevailed to the greatest extent, in the Middle Interior West; and least, in the region of New England; while the relative number of cases of the latter affection was highest in the region of the lakes, and lowest in Texas. The Atlantic Coast of New England seems, on the whole, to be the most healthful, according to the report; indeed, Fort Adams, at Newport, is pronounced by Assistant Surgeon Simpson, barring the miserable accommodations for officers and men, the most salubrious military post in the United States. A curious fact is mentioned, connected with utero-gestation in this region, which we give in the words of Dr. S.—“One peculiarity attending many cases of utero-gestation in this section, not only among the women of the garrison, but also in the city of Newport, is, that it is frequently prolonged from two to five weeks beyond the ordinary period, or beyond the calculations of the woman. This is interesting in a medico-legal point of view. In one case that came under my observation, and in which there was no deception, the child was not born until eleven months after the last appearance of the catamenia. It is impossible to account for this peculiarity, but I have abundant evidence to convince me that such is the fact.”

An important fact may be mentioned in this connection, with regard to the effect of climate on conception. It is stated by Surgeon Kearney, in his report from California, that the climate of California has a very remarkable influence on the uterine functions, particularly in those from the Atlantic States who have been barren for years or who have never borne children:—“They no sooner become acclimated,” says he, “than the uterine organs assume a new tone, and conception immediately follows. This change is not temporary, but continues, and the once sterile woman may calculate with the greatest certainty that the end of every eighteen months will bring an offspring.” He attributes this fecundity, which seems to characterize the lower animals as well, to the bland and stimulating climate.

We will merely allude, in conclusion, to the meteorological tables comprised in the report, as being very full and complete. We note the greatest thermometrical range to be 147 degrees, this being at Fort Ripley, Minnesota; at Fort Kent, in Maine, it is 137 deg. The greatest degree of cold at the former post is —50, and at the latter, —37. In not far from the same latitude, in the region of the lakes, and at a similar altitude, at Forts Brady and Howard, in Michigan, we find the range scarcely less, a result we were hardly prepared for. At Fort Wilkins, on Lake Superior, which is almost surrounded by water, the degree of cold is only —9. In Washington Territory, at Fort Steilacoom, in the same latitude, the range is only 95 degrees, the mercury falling to —1. The greatest heat is at Fort Yuma, in Southern California, situated in latitude 32, on the Colorado river; the average maximum heat for three and a half years being 121 degrees, and the range, 102. The least average range was at Fort Orford, Oregon, on the Pacific Coast, in lat. 43, it being nearly the same as at Key West. The greatest amount of rain fell at Fort Pike, Louisiana, this measuring 71.92 inches; the least, at Fort Yuma, measuring 3.24 inches. At Fort Orford, Oregon, where the thermometrical range is least, the rain gauge indicated 68 inches of rain; a fact that might almost have been anticipated.

Many other points might be touched upon, but our space is already more than filled. It is sufficient to say, in the words of another, that

we regard this paper as a "valuable addition to our library of reference, and cannot too much admire the industry and application of its author, or the generosity of the government which brings such opportunities for information before its subjects." We close, with the hope, which we fear is destined to be disappointed, that this may not be the last document of the kind which is to emanate from the government of the United States.

The Anatomy and Physiology of the Placenta; The connection of the Nervous Centres of Animal and Organic Life. By JOHN O'REILLY, M.D., &c. New York.

THIS is a collection of papers "from the *American Medical Gazette*, in which they were published at various periods, without any alteration." They can hardly be said to be conclusive upon the points discussed, and are wanting in clearness of arrangement, and lucidity of statement. The excuse the author makes as to the want of time, is of no weight, for no one has a right to rush into print, without due consideration, upon matters so broad in their relations, involving so many principles and so important in their bearings as are those discussed in his collection.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 27, 1860.

SECRET REMEDIES.—In one of the best of our exchanges, we are asked why we have "been so remarkably silent" about a much-vaunted remedy, which is said to possess wonderful powers. The name of the preparation we will not mention, as, in doing so, we perhaps should be guilty of calling attention to it, but will merely say that we have been silent, both because we never notice any secret preparation, and because, in this case, a really powerful drug would be deprived of its virtues, if the process alluded to were really used in the manufacture of the nostrum. It is asserted that Indian Hemp is rendered more agreeable and powerful by the removal of its resin. This seems rather a peculiar ground upon which to base the value of the drug, as the best authorities declare that in the resin its power lies, as will be seen by the following extracts relating to this point.

In certain seasons and in warm countries, a *resinous* juice exudes and concretes on the leaves, slender stems and flowers; separated and in masses, it constitutes the *churrus* of Nepal and Hindostan, and to this type, or basis of all the hemp preparations, are the powers of this drug attributable.—*India Journal of Medical and Physical Science*, Vol. VII., No. 49.

M. Gastinel, pharmaceutist at Cairo, has suggested a simple process for the preparation of haschisch. With the dried plant he makes an alcoholic tincture, which he then treats with water to free the *resinous* principle from extractive and other matters, when it is dried.

Haschiscin, as obtained by Gastinel's process, is a complex product, dry, extract-like and *resinoid*, of a deep green color, with a sweetish taste, without any bitter after-taste.—*Rep. de Pharm.*, Mars, 1856, from *Jour. de Med. de Brux.*

The cannabin or pure *hemp resin*, is a purer product than the haschiscin of

Gastinel. It is obtained by the Messrs. Smith, of Edinburgh, by treating the gunjah or hemp tops with repeated effusions of water till exhausted, then with a solution of carbonate of soda; after which it is washed with water and dried. After being thus deprived of inert matter, the hemp is exhausted with alcohol, the tincture treated with milk of lime (1 lime to 12 gunjah), the lime precipitated by SO_3 , the filtered liquid agitated with animal charcoal, filtered, evaporated partially, and the resin precipitated with water and dried.—*American Journal of Pharmacy*, Vol. XXVIII., Third Series, Vol. IV., p. 362.

OPHTHALMIC REPORTS.—*Messrs. Editors*,—Allow a subscriber of the New Sydenham Society to express, through your JOURNAL, a wish that the essays spoken of below, may be included in the publications of the Society. The abstract which is now being given in the "Ophthalmic Hospital Reports," seems to be more designed for the specialist, into whose hands only the "Reports" are likely to come.

The great interest which the Sydenham Society's translation of Prof. Græfe's Essays on Glaucoma has excited in that field of ophthalmic surgery, would seem to warrant the rendering into English his equally valuable essays on strabismus. There is certainly nothing on this subject in any language so exhaustive and *practical* as these papers from the Professor of the Ophthalmic Clinic of the Berlin University.

For the benefit of those of your readers who are not already familiar with them, I would simply add that they have appeared in the "*Archiv. für Ophthalmologie*," (now edited by Prof. F. Arlt of Vienna, Prof. F. C. Donders of Utrecht, and Prof. Albrecht von Græfe of Berlin,) Vol. I., Part 1st, pp. 1—81. "*Beiträge zur Physiologie und Pathologie der schiefen Augenmuskeln*."

Vol. I., Part 1st, pp. 82—120, "*Ueber Doppelsehen nach Schieloperationen und Incongruenz der Netzhäute*." Vol. III., Part 1st, pp. 177—386, "*Beiträge zur Lehre vom Schielen und von der Schiel-Operation*."

"*Ueber den Mechanismus der Muskelrücklagerung und Muskelvorlagerung bei verschiedenen krankhaften Zuständen*."

There are, also, scattered through the "*Archiv*" since its commencement in 1855, single cases from von Græfe illustrative of this subject.

To these essays certainly should be added the "*Klinische Analyse der Motilitätsstörungen des Auges*," für Aerzte und Studierende, "von Dr. Alfred Græfe, Assistenz-Arzt an der von Græfe'schen Augenklinik zu Berlin," 1858, the dedication of which, "*Meinem Lehrer und Freunde, Albrecht von Græfe*," shows from whence it originates, and its consequent value. Should the New Sydenham Society publish von Græfe's essays, it is hoped that they may also translate this "*Analysis*."

B. J. J.

"To the student visiting the Ophthalmic Clinic of the Berlin University, the great attention paid to those forms of disease which demand a precise knowledge of the mechanism of vision, and an exact application of physiological optics for their analysis, diagnosis, and treatment, must form a most striking feature in the course of instruction so indefatigably carried out by the highly-gifted teacher whose name is so inseparably connected with some of the greatest advances in ophthalmic science; a science, for the pursuit of which, among the students of Germany, such enthusiasm has been kindled by his influence. The visitor will, for instance, be particularly struck with the exact methods of investigation pursued in cases of paralytic affections of the external muscles of the eye, and will find as much reason to be gratified with the able manner in which the ætiology of

the affection is traced, and the prognostic and therapeutical part of the question handled, as with the mathematical precision which is brought to bear, for diagnostic purposes, on the resulting abnormities in the act of binocular vision. The series of elaborate papers, by Dr. Wells, now in course of publication in the *London Ophthalmic Hospital Reports*, will tend to show the important results, valuable not only for the oculist, but also for the neuro-pathologist, which can be derived from a careful analysis of functional derangement in the motor forces of the eyeball. These are mainly the results of observations collected in the Berlin Clinic.

"By observations conducted in this manner, the exact results, embodied in Graefe's papers on Strabismus, have been arrived at; serving not only to elucidate the true pathology of that affection, but also to fix the indications for operative interference on a firm basis, and to permit a *certain* prognosis with regard to the effects of an operation, which, by want of due discrimination in its performance, has been so frequently exposed to discredit. I hope that the Sydenham Society, which has already been the medium of making the profession acquainted with Graefe's "Memoirs on the Treatment of Glaucoma," will consider the advisability of including a translation of the Strabismus papers in their valuable series of publications.

"It would be impossible by any abstract to do justice to the elaborate train of reasoning, and the large number of excellent observations contained in the essays on this important and so frequently ill-used subject."

PSYCHOLOGICAL JOURNAL (London).—This excellent quarterly periodical, devoted to the interests of psychological medicine, is about to commence a new series, under the title of *The Medical Critic and Psychological Journal*, and enlarged to 200 pages. A series of essays are announced on the present and prospective condition of the medical profession, in its moral, social, political, literary, and scientific relations. This Journal is the private property of its distinguished editor, Dr. Forbes Winslow.—*American Medical Times*.

THE CRETINS OF SAVOY.—The French Emperor, in the course of his passage through Grenoble, had a long conversation with Dr. Niepce on the causes of goitre and cretinism, of which affections his Majesty had seen some examples in his tour through Savoy. The Emperor presented the cross of the Legion of Honor to Dr. Niepce, who has written a valuable work on the subject, which obtained the prize offered by the Academy of Sciences. His Majesty also announced his intention to encourage the researches on these diseases by offering a premium for the best essay on the question.—*London Lancet*.

HEALTH OF SAN FRANCISCO.—The current month has been free from epidemics of all descriptions. There have been three or four sudden deaths, the causes of which remain unknown from the want of autopsies. There have been a good many cases of ulcerative tonsillitis, and a few of genuine diphtheria of mild form, none fatal. There have been a little more than the usual number of fatal and severe casualties. We have not had more than three days of rain in the month ending 29th Nov.; the remaining days have been delightful, sunny, and without wind. This comparative stillness of the air, with sunshine and moist earth, has doubtless developed miasm, to which the many acute affections that have occurred during the past two months may doubtless be attributed. The number of deaths in this city, from all causes, during the past two months, is 295.—*Pacific Med. and Surg. Jour*.

A QUACK ADVERTISEMENT.—The New York *Tribune* states that it is to receive over \$31,000 for one year's insertion of a quack advertisement in its daily, semi-weekly, and weekly issues. It states that this will prove a profitable investment to the advertiser, in which case this enormous sum of money will, of course, be drawn from the readers of that paper, and be paid back to the quack for his worthless preparation.—*American Medical Times*.

In San Francisco, a fireman fell from the awning of a house on fire, striking upon the pavement. At the autopsy, four of the vertebræ were found crushed. He lived twenty-three hours after the fall, in perfect consciousness.—*Pacific Med. and Surg. Journal*.

EVASION OF THE ENGLISH "MEDICAL ACT."—A practitioner, who professes to be a graduate of this country, has attempted to evade the requirements of the Medical Act, which requires graduation or licensing in England before assuming the title of Doctor, or Surgeon, by styling himself "I. Hamilton, Surgeon, Boston, U. S. Anti-Registered." Previous decisions have determined that the assumption of the title is illegal, unless the practitioner be registered.—*Med. and Surg. Reporter*.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, DECEMBER 22d, 1860.

DEATHS.

	Males.	Females	Total
Deaths during the week,	37	29	66
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	38.2	36.1	74.3
Average corrected to increased population, . . . . .	..	..	83
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
16	1	4	3	0	0	1	1

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.141	Highest point of Thermometer,	40°
Highest point of Barometer,	30.700	Lowest point of Thermometer,	3°
Lowest point of Barometer,	29.266	General direction of Wind,	N. & W.
Mean Temperature,	26°.75	Whole am't of Rain in the week	1.140

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

		BAROMETER.				THERMOMETER.			SNOW.		Mean Amount of Cloud. 0 to 10.
		7 A.M.	2 P.M.	9 P.M.	Mean Height.	7 A.M.	2 P.M.	9 P.M.	Time.	Meas-ure.	
Monday,	Dec. 10,	29.25	29.40	29.54	29.56.	33	32	18	15 m.	0.07.	4
Tuesday,	" 11,	29.65	29.46	29.30		13	17	25			
Wednesday,	" 12,	29.38	29.37	29.38		10	23	21			
Thursday,	" 13,	29.55	29.73	29.32		6	7	2			
Friday,	" 14,	29.88	29.82	29.77		6	13	9			
Saturday,	" 15,	29.71	29.64	29.59		9	29	27			
Sunday,	" 16,	29.69	29.72	29.70		22	30	23			

COMMUNICATIONS RECEIVED.—Case of Suppression of the Menses.

BOOKS RECEIVED.—A Practical Treatise on the *Ætiology, Pathology and Treatment of the Congenital Malformations of the Rectum and Anus*. By William Bodenhamer, M.D. (From the Publishers.)—A Handbook of Hospital Practice, or an Introduction to the Practical Study of Medicine at the Bedside. By R. D. Lyons, K.C.C., M.B.T.C.D., M.R.I.A., &c. (From S. S. & W. Wood, New York.)

DIED.—At Sacramento, Cal., Nov. 16th, G. W. Proctor, M.D., formerly of Louisville, Ky., 34.

DEATHS IN BOSTON for the week ending Saturday noon, December 22d, 1860, 66. Males 37—Females 29.—Asthma, 1—inflammation of the brain, 2—bronchitis, 1—burns, 1—cancer (of the uterus), 1—consumption, 16—convulsions, 1—croup, 1—cyanosis, 1—debility, 2—dropsy of the brain, 3—dysentery, 1—scarlet fever, 4—typhoid fever, 1—gastritis, 1—gangrene (of the leg), 1—hæmoptysis, 4—hæmorrhage (of the uterus), 1—disease of the heart, 2—intemperance, 1—disease of the liver, 1—congestion of the lungs, 2—inflammation of the lungs, 3—old age, 2—premature birth, 3—puerperal disease, 2—unknown, 7.

Under 5 years of age, 17—between 5 and 20 years, 5—between 20 and 40 years, 15—between 40 and 60 years, 19—above 60 years, 10. Born in the United States, 40—Ireland, 21—other places, 5.

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THE VALUE AND THE FALLACY OF STATISTICS IN THE OBSERVATION OF DISEASE.

A BOYLSTON PRIZE ESSAY, BY DAVID W. CHEEVER, M.D.

"Je sais que la vérité est dans les choses, et non dans mon esprit qui les juge; et que moins je mets du mien dans les jugements qui j'en porte, plus je suis sur d'approcher de la vérité."—*Emile J. J. Rousseau.*

[Communicated for the Boston Medical and Surgical Journal.]

THIS saying of the sage of Geneva has been used as evidence for the value of statistics, but it contains, also, as it seems to us, the germ of their fallacy; since they tend, when carried too far, to separate reason from observation; to ignore the subjective, and to study only the objective phenomena of disease. They would lead the medical observer to overlook, with Rousseau, the fact that it is by his mind that he judges, and that the rectitude of his decision depends on his own mental acuteness.

To adopt a clumsy but expressive phrase of Carlyle: "The eye sees only that which it brings with it the power of seeing." Previous knowledge and particular training, as well as common sense, are necessary to the correct observation of any class of phenomena. Observation must always vary with the character of the observer. We are the standard by which we must judge of external nature. The true understanding of natural laws is never attained wholly from without, nor immediately from nature, but rather from our own conceptions and deductions. Our senses, of themselves, teach us nothing, but only furnish us with impressions from which to infer and by which to determine the actual state of things outside of ourselves. And these impressions must inevitably differ in each individual, in accordance with his own preconceived ideas of the nature or uses of the object he examines. The ancient Romans assembled as varied specimens of the Animal Kingdom in the great *vivaria* of the Flavian amphitheatre, as the Jardin des Plantes can number within its enclosures. And yet they derived from them, if any, but the rudest notions of their pecu-

liarities, races, and modes of life; while the broader generalizations of natural history and comparative anatomy never once crossed their minds. Archimedes saw only in the convex lens an instrument to burn the enemy's fleet; but Torricelli, the revelation of a new world of microscopic nature.

Nor can numbers, any more than our senses, teach us anything by themselves. The mere observation of simultaneous or consecutive occurrences, however great the number of cases may be, can lead to no definite results which may not be fallacious. A causal connection must be otherwise established. By a neglect of this circumstance, observers have been betrayed into the most absurd conclusions. Some would regulate the periods of parturition by the changes of the moon, and make the births of our race coincide with the quarters of that satellite. Others, as Boudin, by computations, bring the motion of the earth about its axis and around the sun, into a certain relation with the weight and excretory processes of the human body, thus pretending to establish a tidal flow of our excretions, ruled over by remote planets: a supposition which might suggest to the astronomer that the next discovered member of the solar system be named Cloacina. It could be no more ridiculous for the stranger who passed the night in the steerage of an emigrant ship to ascribe the typhus, which he there contracted, to the vermin with which the bodies of the sick might be infested.

An adequate cause, one reasonable of itself, must correct the coincidences of simple experience; and the mere numeration of any series of events cannot establish any general principles without analysis, classification, comparison, and induction.

The term "statistics" is nearly equivalent to "political," or "social science"; and we prefer the use of the expression, "the numerical method," in medical *parlance*. This method has both a value and a fallacy. And our subject has been well stated in this respect, and wisely restricted to the *observation*, or natural history of disease. For it so happens that this is not only one of the most important branches of medical science, but one of the most difficult to define and accurately determine.

By the natural history of disease we mean the succession of phases which it exhibits when left to itself, uncomplicated by other morbid processes, and unmolested by active treatment. The wiser view of disease has gradually gained ground, that it is not a distinct entity, something extraneous to the usual processes of life, and inimical because foreign. But that disease is only a variation from health, a difference in the action of the normal functions of the body, yet only a modification of them. Hence the natural history of disease aims to exhibit all the morbid changes in the vital phenomena, whose sum constitutes sickness, or variation from health. We are led to believe, too, that diseases, in their course, have a natural rise, increase, inter-

mittence, climax, decline and limit. The establishment of these facts; the self-limited nature of some diseases; the inherent tendency to recover in others, and the proportional mortality of diseases generally, when left to themselves, are of the first importance in determining the value of therapeutics.

Such knowledge is, from the nature of things, very difficult to acquire. The accumulated errors of the past, and the ever present obstacles of interest, prejudice and partiality, constantly impede our progress. It is by no means easy to find a proper field for such inquiry; and a true estimate of the powers of nature is interfered with through the officiousness of art. Most diseases are subjected to so active treatment, as must at once vitiate the result. The practitioner's own conscientious scruples against leaving any cases to the care of Nature alone, from the fear, magnified by his previous teaching, that he might be injuring his patients; the non-perception of the utility of the knowledge to be so acquired, and the dread of being exposed to the charge of malpractice, all operate against his obtaining a knowledge of the natural history of disease. Effects are ascribed to drugs which really flow from natural causes, and are but the usual succession of the morbid phenomena; sequences are taken for consequences, and all just conclusions confused.

From the want of this knowledge; from defective observation, rash generalizations, and hasty conclusions *à priori*, have arisen the thousand conflicting theories which have degraded Medicine from its true position as a science, and interfered with its advancement as a practical art. Soon after the decease of the great prototype of medical observers, Hippocrates, such sects as Dogmatics, Empirics, Methodists, Pneumatists and Eclectics, violated the principles which he laid down, and successively assumed the control of disease. Two of these, the Empirics and Eclectics, have survived the rest. Later, the Humorists and Solidists divided the medical world. Pharmacy next mounted the throne, and conducted a reign of indiscriminate drugging, in which the value of a prescription seemed measured by its length. Treatment oscillated between such extremes as the antimonial tolerance of Rasori and the bleeding *coup sur coup* of Bouillaud. Etiology, in the hands of the most opposite characters, was content to trace all maladies to a single cause; which *materies morbi* Broussais located in the alimentary canal, but Hahnemann upon the skin. Sydenham, Boërhaave and Hunter countenanced a return to the neglected rules of Hippocrates; and a tendency to more exactitude in observation, owing its inception mainly to the physical diagnoses of Laennec, culminated in the numerical method of Louis.

The unfortunate student of medicine has therefore ever been placed between the horns of this dilemma; either to try to reconcile these conflicting theories, or to mount the favorite hobby of the most enterprising spirit of his times. Not only has he had to

pursue subjects of study, in themselves dry from their apparent want of connection, but he has, more than all else, been crushed by the multitude of isolated facts, simultaneously presented to his mind and memory, for mastery and retention.

How tempting, then, must the supposed certainty, the easy generalization and the all-embracing tabulations of the numerical method, have seemed to him! A way appears at last to have been opened out of his difficulties, and he, perhaps too eagerly, follows the most promising path.

Although Louis first applied the numerical method, in its strict sense, to the observation of disease, yet the numbering of cases is as old as Hippocrates, and it was used by every practitioner who counted the facts of his experience, since that time. Capt. John Graunt, of London, has the honor of being the first writer who ever directed the attention of the world to the comparative births and deaths of different cities, years, seasons and sexes, and to the comparative mortality of disease. This he did in a work published in London in 1662. He had much genius for observation, and was really the creator of the new science of statistics. But the name owes its origin to Achenwal, of Göttingen, who published a work in 1749, in which the term *scientia statistica* occurs for the first time. The use of numbers as a means of comparison, in this work, led to the strange mistake of regarding their employment as a new method. It is more particularly during the present century that an attempt has been made by numbers to give to many subjects the exactness of the physical sciences, and to compensate for the want of demonstration by averages, and the balance of probabilities. Statistics, says Mr. Buckle, although a recent science, have already done more to advance the cause of human knowledge, than all other methods of investigation put together. Quetelet stands, perhaps, at the head of modern statisticians. The wideness and variety of the application of statistics is only equalled by the varying degree of certainty which attaches to their results. Births and deaths, marriages and morals, accidents and crimes, are all averaged and tabulated, year by year. Diseases and causes of death; epidemics, hygienic and local surroundings; trades, professions and crops, are equally subjected to numerical analysis. And from this the curious fact of the average uniformity of all events results. Thus, male births are ever in excess of female in the proportion of about 21 to 20; marriages depend on crops and prosperity; disease favors certain districts in proportion to their hygienic state; fecundity succeeds epidemics; accidents do not exist, but the same yearly average of casualties and crimes prevails approximately at all times. So that one can always predict, with much approach to certainty, how many persons will steal, or murder, or commit suicide, and even by what modes, or weapons, in any given period of time. Some have even carried this so far as to assert that the same number of misdirected letters, in the average, pass through

the London post office every year; thus proving that not even occasional absence of mind is purely the result of chance.

It is obvious that very different degrees of certainty must prevail in the various kinds of statistics. Thus, commercial averages of imports or exports; financial statistics; or those of births and deaths, or of the crops—must be approximately more accurate, than those which relate to hygiene, to epidemics, or to casualties. And this, because the data in the former cases are few, simple and ascertainable; but in the latter, many, complicated and obscure. And here we shall find one of the cardinal distinctions to be drawn between ordinary statistics and the numerical method as applied to disease, as well as one of the many fallacies of the latter.

We fear that the mistake exists in the minds of some, of confounding together the laws and results of Physical signs with those of the Numerical method. It is true that the application of both began, so to speak, in the same country, and that they are nearly coeval; we are the more apt, therefore, to confound them, though the distinction between them is really wide, and should be always borne in mind.

Both these methods claim great accuracy; both also are apt to be carried too far. The one to the neglect of general, rational symptoms; the other to the tabulation of incomparable facts, and the drawing of illogical conclusions from too few, or too obscure *data*.

Man is incapable of observing all the phenomena of any event, but this is necessary to a perfect view of it. It is precisely the younger observers, the advocates of exact investigation, who think they see everything, and that they are the first to observe correctly.

Yet there is much practical wisdom acquired in life, on which men are obliged to depend, and which was never obtained by a formal, or mechanical process. Thus, a knowledge of human nature is not learned by counting, but by reasoning; by induction, and not by numeration. And statistics, like physical signs, when pushed to excess, may destroy that readiness and practical tact, which is of the most value in the treatment of urgent cases. Should one wait to tabulate and compare the symptoms with the mass of statistics previously acquired, the individual case would probably die, while waiting for relief. And it very unfortunately happens that the most sudden diseases have not the best established therapeutical laws. In surgery, no one would hesitate to compress a bleeding vessel; but in medicine, room is always left for a balance of probabilities; and the statistician would have to enforce a fatal delay before he could decide from numbers to bleed in apoplexy, or to vomit in croup.

While therefore mere observation and numbers, by themselves, are equally inadequate to unfold to us that most important of subjects, the natural history of disease, some further method must be sought for, than pure and naked experience. For all that we know

by experience, or that which we express by an empirical law, is only a simple fact that certain effects and influences occur together, without our being able to point out their mutual dependence. And as there are no such things as accidents, or exceptions to natural laws, so in the living body, as elsewhere, no effects can occur otherwise than as consequences of fixed causes. They seem accidental and exceptional only because they are unexpected, and their antecedents unknown. Therefore, although the causal connection of events and phenomena is in our science peculiarly hard to trace, it is still the most legitimate object of investigation.

Analysis, followed by synthesis, are the two auxiliary methods in our search for causal connections. Analysis must precede synthesis. We must follow up the stream of events to their tributaries and source. We must break up and search the groups of similar and related individual facts, and then apply their laws to aggregates. By a natural impulse we follow analysis by an attempt at generalization. And here experience, fallacious though it be, must confirm our conclusions, or they are valueless. It is equally necessary to correct generalization, that we should discover resemblances, and demonstrate an agreement in essential points, among the phenomena, or relationships which we are seeking to bring under the control of a single law. Thus we should fail to explain the different agencies of chlorine on colors and on odors, did we not know its affinity for hydrogen, which operates in either case.

Yet, without generalization, our experience is but a chaos of empirical facts. And it is in the science of medicine that this difficulty of separating single phenomena from the magic circle of the whole, or of judging of their complexities in aggregates, or of generalizing widely and wisely by real resemblances, essential agreements, and well-known effective causes, is the greatest obstacle to real advancement.

We venture to say that there is but one other science, that of meteorology, comparable to medicine in uncertainty, and in the number and variability of unknown influences, which control its results. Who is a true prophet of the weather, or of disease?

For example, what a variety of influences affect a single organ, the eye. The laws of vitality, the rules of optics, the unknown chemical changes which photograph on the retina the image of the object seen; and finally the equally unknown connection of sense and nerve, brain and perception, all coincide in the government, the regulation and the result of vision. All its lenses, curtains and tunics are endowed with life; all are nourished by constant changes, and all are connected with the machinery of the whole organism. The cornea transmits, the iris cuts off the rays; the humors refract, the lens focalizes and renders achromatic, and the retina receives the soft impression of the sun's beams. Secretions moisten its exposed surfaces, and soft cilia free it from dust.

Muscular agencies move it in combined action; habit, mental influence, or some unknown law, regulate the harmony of the perceptions of both eyes, and replace the inverted image which the upright object makes, into its proper position in the sense itself.

“The structure of the human frame as much surpasses the most skilful work of man’s hands, as its functions do the play of his most ingenious mechanism, and its products the results of his most refined chemistry. That which he knows, bears no proportion to that of which he is entirely ignorant, and what he sees, he sees but darkly. He seeks for causes, but they elude his search; the vital principle, which contains the solution of his difficulties, baffles him at every turn; he strives, as it were, to seize it by force, but the violence which he uses defeats itself, and the tortured body dies that it may preserve the secret of its life. Such, and so inscrutable is the body in health; disease surrounds it with new mysteries. Its structure passes through strange transformations; its functions undergo wonderful changes; a new chemistry presides over its secretions, and new principles seem to pervade its every part. Exposed from without to a thousand varying influences; subject within to innumerable changes; governed by a subtle principle which pervades every part, but seems to have no single centre of action; the tenement and instrument of a mind which it both obeys and governs—the human body forms, beyond all comparison, the most difficult, the most complicated study which offers itself to our choice. Our knowledge of such a structure must ever be imperfect, even if we confine our inquiries to a single, human being, or if every human being were the counterpart of every other, and external influences produced the same effects on all. But each human body differs from every other in outward form, in inward structure; in health, in disease; in the degree of influence of external things upon it; in the effects of food and remedies.”

What wonder, then, that the careful medical logician should lay down as general laws: First, that, “In the living body, the same event or effect may occur in very different manners, under varying and dissimilar circumstances:” a fact which greatly complicates the investigation of casual connections. And, Second (because of the very varied influences in the development of vital phenomena), that, “In the living body no occurrence or effect ever takes place with perfect constancy and certainty, and always in the same manner; and that we cannot, for this reason, with perfect certainty, predict or expect any occurrence or effect whatever.”

From these insuperable obstacles medical science has conducted its inquiries through two distinct stages, and is only partially within the borders of the third. These stages, according to M. Comte (*Philosophie Positive*) are, First, fiction and faith; Second, speculation; and Third, positive science. Anatomy, physiology, surgery, and morbid anatomy are either firmly established in, or have already entered upon the third stage. But the natural his-

tory of disease has long lingered in the first two eras, and is slowly emerging from them; while therapeutics, worst of all, remains, but for a more or less fallacious empiricism, as firmly rooted in fiction, faith and speculation as ever.

Medical science has always been in advance of medical art; and the progress of the latter does not correspond to the discoveries of the former. The power of healing is much inferior to the capacity of knowing; the treatment, to the diagnosis of disease. All the obstacles which arise to impede our progress in the inquiry into the causes, or the natural history of disease, assume a ten-fold greater magnitude when we attempt to investigate their treatment. So, likewise, the objections to, and fallacies of the numerical method vary with the subjects for which it is consulted. Statistics of etiology and structural lesion are more reliable than those of pathology; and all of these, *à fortiori*, than those of therapeutics.

The question naturally arises whether the difficulty in medical investigations is inherent in the subject itself, or is due to faulty observations. Both causes probably concur in producing it. If the complexity and uncertainty of vital phenomena prevent a clear and comprehensive view of their relationships and laws, no less do the preconceived opinions and inaccurate modes of study of the observer stand in the way of the attainment of the truth. The former of these applies with more force to the medical science, than to the medical art; to a collection of principles, than to their practical application.

Originally a mere art, medicine took the form of a science when men began to collect, arrange and analyze individual instances, and to express what was common to them all in the form of propositions. The art which preceded the science differed greatly from the art which sprang from the science. The one was mere empiricism; the other, practical science. The art of medicine, as it now exists, is the offspring of science; and we can no longer regard individual facts in any other light than as suggestions to new inquiries, hints for practice, and solitary materials for the formation of theories. So, true observation is the union of thought and perception, which analyzes, arranges and classifies the facts collected. A simple employment of the senses is not observation; nor does the exercise of them constitute experience. In this sense, therefore, the science of medicine cannot be said to be wholly empirical.

To be continued.]

CASE OF SUPPRESSED MENSTRUATION.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—If you think the following case worthy of insertion in your JOURNAL, it is at your disposal.

Mrs. F., aged 25, of medium height and good figure, native of Scotland, married about three years, no children, called at office Oct. 20th, 1859, for the relief of suppression of menses, she not having "seen anything" for the twelve months previous; she had been taking medicine most of the time, without any relief. Upon examination, I could discover no signs of pregnancy, neither by touching nor by auscultation. She complains of no pain or uneasiness in any portion of the body; the only indication of a disordered condition of the system is an unusual paleness of the face. She has a good appetite, and performs her household duties without assistance. Since I first saw her, I have prescribed at various times, tonics, emmenagogues; also depletion, with foot and hip-baths, but without any relief. There is but little, if any enlargement of the abdomen, with no change in the breasts, the possibility of the existence of pregnancy, of tumor or ascites, being thereby precluded. I find, by reference to my notes, that, Dec. 20, I introduced a bougie into the womb, and on that evening there was hæmorrhage, but it ceased before morning, and there has been no flow since. I have introduced the bougie two or three times since, but without accomplishing anything. Previous to the suppression, she had two miscarriages, both accidental—the last through fright, which may also have been the cause of the suppression.

I present this case as a peculiar one, taking all the circumstances into consideration—the natural size of the abdomen, the normal condition of the breasts, and the comparatively perfect health of the individual.

CHAS. H. LOTHROP, M.D.

Lyons, Iowa.

Selections from Medical Journals.

THE HOT SPRINGS OF ARKANSAS.—Of the Hot Springs, there are some fifty-four distinctly recognizable, besides a considerable number in the bed of the creek. With one exception, their temperature ranges from 120° to 148° of F., and their composition is nearly the same. The exception is a warm spring (temperature 100°) discovered a year ago on the bank of the creek beneath the others. It has a strong odor and taste of sulphur, and is believed to have considerable virtues.

The quantity of water discharged by the various hot springs is estimated at 350 gallons per minute (one spring affording 60 gallons), or, say about 500,000 gallons *per diem*.

The analysis of the water is as follows (by Prof. Owen, State Geologist, Arkansas):

1½ (one and a half) gallons of water contain—	
Of silica, with sulphate of lime	1.04 grains.
Carb. of lime, 1.63, and bi-carb. of lime	2.04 “
Carbonate of magnesia	0.326 “
Bi-carb of magnesia	0.05 “
Sulph. of Lime, dissolved in water	0.35 “
Chloride of potassium	0.05 “
Chloride of sodium	2.18 “
Oxide of iron, with a little alumina	0.133 “
Dry powder (insol.)	1.16 “

The average attendance of visitors this spring and summer has been about four hundred, chiefly of persons afflicted with rheumatism, neuralgia, paralysis, dyspepsia, mercurial affections and syphilis. Rheumatism is the most frequent of these.

The baths are taken according to the custom of the place, without immediate medical supervision. Small wooden bath-houses are fitted over the creek, and close to the precipitous edge of the hill. Wooden reservoirs retain the water, which they receive through wooden troughs, until it is sufficiently cooled to be borne: it is then dropped in a stream of about an inch in diameter, from a height of nine or ten feet, upon the affected part, or the body generally (the time, according to the patient's power of endurance), and is received into a large wooden tub used for the plunge bath. A small chamber adjoining receives the steam from the constant flow of water, through wooden strips on which he stands, and drinking copious draughts of “hot and hot” in the meanwhile, the patient endures the vapor for five or ten minutes without any apparatus for breathing of fresh air, an occasional protrusion of the nose at the door being necessary: after which, more drinking of “hot and hot,” and to bed, to sweat profusely under blankets from half an hour to two. This, once or twice a day, and the frequent drinking fresh hot during the day, other medicines being laid aside. This is what custom prescribes.—A. J. WRIGHT, ESQ., in *New Orleans Medical and Surgical Journal*.

RETIREMENT OF M. RICORD FROM THE HOPITAL DU MIDI.—The medical profession will hear with regret of the definite retirement of M. Ricord from the post of Surgeon to the Hôpital du Midi. Philip Ricord is a native of America, and was born at Baltimore, on the 10th of December, 1800. Owing to the regulation now in force, which excludes from the exercise of hospital functions those surgeons who shall have attained the age of sixty, the term of service of the talented surgeon would naturally have expired at the end of the present year. M. Ricord has, therefore, probably deemed it a more dignified course to resign prior to the completion of the full period. For nearly thirty years this celebrated Professor has occupied the Clinical Chair of the special branch of Surgery

to which the Hôpital du Midi is exclusively devoted. The materials with which M. Ricord has built up his colossal reputation have, for the most part, been gleaned from the wards of this establishment. The admiration he has won, the friendships he has secured, the fortune he has accumulated, are all, more or less, consequences of his connection with this hospital. It was not likely, therefore, with such associations crowding on the memories of the speaker and of his audience, that M. Ricord should be able to take leave of the field in which he had toiled so cheerfully and so indefatigably for the space of an entire generation, without a lively feeling of emotion and regret, touchingly expressed by himself, and as warmly sympathized in by his hearers. The scene of last Thursday, M. Ricord's farewell to his hospital career, was a complete ovation. For more than two hours a numerous audience of friends, pupils and admirers listened with deep interest and veneration to a most pathetic parting address. The speech of the talented surgeon embraced a masterly sketch of the many and valuable contributions—the fruits of a long life of well-directed industry—with which his labors have enriched the treasury of medical science. If any man at any moment of his life might be pardoned the indulgence of a little self-glorification, surely M. Ricord, on Thursday afternoon, was entitled to such a privilege. On this occasion, however, the modest and unassuming manner in which he alluded to his immense services charmed and delighted his hearers by its delicacy of feeling; and the deafening acclamations which succeeded his valedictory discourse bore ample testimony to the warm sympathy he enjoys among his professional brethren. The following are some of M. Ricord's more celebrated works:—"Mémoire sur l'Emploi du Spéculum dans les Maladies Vénériennes;" "Mémoire sur l'Inoculation Artificielle de le Vérole chez l'Homme;" "Mémoire sur la Blennorrhagie chez la Femme;" "Mémoire sur l'Emploi de l'Onguent Mercuriel dans le Traitement des Erysipèles;" "Réfutation de l'Opinion de Hufeland sur la Blennorrhagie;" "Mémoire sur le Chancre;" "Mémoire sur l'Epididymite;" "Traité Pratique des Maladies Vénériennes, et Recherches sur l'Inoculation appliquée à l'Etude de ces Maladies" (this, perhaps, is M. Ricord's principal work); "Du Sarcocèle Syphilitique, de l'Induration des Corps Caverneux, et d'une Altération semblable de la Coque Fibreuse de l'Œil;" "Différence entre la Blennorrhagie et le Chancre;" "Clinique Iconographique de l'Hôpital des Vénériens;" and the "Lettres sur la Syphilis," originally published in the *Union Médicale*, and now embodied in a volume.—*Special Correspondent of the London Lancet*, Oct. 6, 1860.

M. Cullerier has been appointed as M. Ricord's successor at the Hôpital du Midi.

STATISTICS OF LITHOTOMY.—From the establishment of the Norfolk and Norwich Hospital, in July, 1772, to the end of last year,
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being a period of eighty-seven years and a half, 863 cases of stone in the bladder were admitted within its walls, and the calculi removed by the following methods:

Lateral operations	803
Extracted by dilatation, (female)	41
Lithotrity	11
Median operation	8
	—863

Of the 863 cases, 698 resulted in recovery, and 105 terminated fatally, giving a proportion of 1 in 7·647. Of the 41 females, 39 were cured, two died, the proportion being 1 in 10·5. One case ended fatally after the performance of the median operation. Taking the whole number, the recoveries were 755; the deaths, 108; the proportion 1 in 7·99. The males numbered 822; the females 41, or 1 in 20.

Of late years the average of success has been high. From June, 1853, to December, 1859, a period of six years and a half, 69 patients were operated on; 4 died, the rest recovered; the proportion being 1 in 17·25. If 9 lithotrities and 3 females be omitted, there remain 57 on whom the lateral and median operations were performed, and as the deaths are 4, the result is 1 in 14·25.

It is a singular fact, that in two distinct periods during the existence of the institution, have forty cases of stone been operated on successfully without death. The first instance occurred to M. Martineau; the second happened in a succession of cases, as they occurred to the surgeons of the day, Messrs. Dalrymple, Crosse, and Norgate.

The number of calculi which have been removed by operation at this hospital, amounted to 982 specimens, which have been carefully collected, and preserved in the museum of the institution. They form the largest collection in the world of human urinary calculi, exclusively the produce of a single establishment, and are arranged in numerical and chronological order, with an inscription to each, distinguishing the name of the operator, the name and age of the patient, the weight of the calculus removed, the day and year of the operation, and the date of the patient's discharge as cured, or his death when the result was unfavorable. A section has also been made of every calculus when such was practicable. To this fine collection may be added 542 other specimens of calculi presented to the museum of the hospital by different surgeons.

—*London Lancet.*

THE "Elberfeld Gazette" states that in Prussia, in a population of 17,739,913 souls, there are 358 district physicians; 4,327 having their grades; 996 surgeons, first class, and 643 second class; 1,026 veterinary surgeons; 1,529 apothecaries; and 11,411 midwives.

Medical Reports from the Mass. General Hospital.

PREPARED BY ROBERT WARE, M.D.

TYPHOID FEVER. (Under the care of Dr. MINOT.)—T. Q., 19 years, single, a carpenter, of Irish birth, but resident of Boston, entered Aug. 26th, 1860. Patient answers questions readily, and appears rational. He states that his sickness began about three weeks since, with headache, pain in the back and limbs, vertigo, nausea, epistaxis, diarrhœa to the amount of thirteen dejections in one day within the past fortnight, and disturbed sleep. His health is usually good. He has had some delirium, but appears quiet now; skin hot and dry; tongue with yellowish coat in the centre, and with red edges; pulse 94; abdomen tympanitic, gurgling at iliac fossæ. R. Mist. febril., \mathfrak{z} i. every three hours. August 27th.—Patient had a very delirious night, getting out of bed and trying to get out of the window; answers a little incoherently; some headache; epistaxis this morning; tongue moist, with thin, yellow coat; pulse 100, weak and reduplicated; tenderness at iliac fossæ; no subsultus tendinum; one dejection, going to water-closet himself. Wine whey, Oss.; beef-tea, ad libitum.

Aug. 28th (12th day of disease [?].—The period of the disease cannot be ascertained with precision, but its course and the occurrence of rose spots on this day would indicate that he entered at about the end of the second week.) He has been much more quiet, and slept well; says no dejection, but is known to have gone once to the water-closet; pulse 92, soft; tongue moist, with thin coat; no sordes; answers questions readily, but appears rather more stupid; two or three rose spots on the abdomen; takes food well. 13th day—Mind pretty clear; reports several dejections in the night, but continued to go to the water-closet; pulse 96; a few more rose spots. 14th day—Quite a comfortable night, and is quiet this morning, though rather more uneasy talking; tongue nearly clean, moist; pulse 96; much viscid mucus in the mouth. Brandy, half an ounce every two hours. 15th day—Was very delirious yesterday afternoon and evening, getting out of bed, &c.; appears stupid, but answers well; went frequently to the water-closet, but result not known; pulse 108, soft and undulating. Took twelve ounces of brandy yesterday, and a pint of cracker and milk this morning. To have milk. 16th day—Had a “good supper” last night, and was quiet through the night; tongue tremulous; aspect better; some sordes. 17th day—Says much better; pulse 84; appetite very good; six dejections. Omit fever mixture. R. Mist. Cretæ, \mathfrak{z} ss.; tr. opii, gtt. vi. 18th day—no recurrence of diarrhœa; epistaxis last evening; a few more rose spots. To have broth.

From this date he rapidly improved. He sat up on the 20th day; was allowed potato on the 23d, and steak on the 24th days. He was discharged on the 30th day, Sept. 15th.

TYPHOID FEVER. (Dr. MINOT.)—Sarah H., 34 years, widow, a domestic, born in Maine, and resident of Medford, entered Sept. 10th, 1860. Patient is quite delirious, and can give no satisfactory account of herself. She states that she had an attack of chilliness, followed by pain in the head and limbs, about two weeks since, but kept at

work till a week ago, when she was obliged to take to her bed; has had no epistaxis. R. Mist. febril., \mathfrak{z} i. every three hours; wine whey.

Sept. 11th (12th day of disease?).—Restless and delirious night, trying to get out of bed; complains of confused head, and is rather somnolent; pulse 84, very weak; respiration rather accelerated and sighing; some sordes on the teeth; tongue nearly clean, fissured, protruded slowly, and mouth sore; has had four dejections since yesterday; quite tender at the right iliac fossa, and a few rose spots on the abdomen. Solution of borax (\mathfrak{z} i. to Oi.) as wash for the mouth; tamarind water. 13th day—She had a comfortable night, with no delirium; answers questions slowly, and memory a little imperfect; tongue as yesterday; pulse 96; takes sufficient nourishment. 14th day—No delirium; pulse 96, soft; five dejections; has had a chill daily about noon time. Omit fever mixture. R. Mist. cretæ, \mathfrak{z} ss.; tr. opii, gtt. vi. after every three dejections. 15th day—Mind clear; diarrhoea diminished; respiration rapid; pulse 96. 16th day—No delirium; skin rather hot; tongue moist; pulse 96; respiration 48, and somewhat wheezing; occasional slight cough; no expectoration; some doubtful lack of resonance on percussion at the right base behind, where the respiratory murmur is quite feeble; sibilant rales, mixed with some fine crepitus, heard over both backs, especially on the left side. R. Wine whey, Oi. in twenty-four hours; may have broma. Gum water for drink. 17th day—Restless night, and complains of want of sleep; no delirium, but some laughing and talking; respiration as yesterday; creaking sounds heard over the chest, but no rales; expectoration of serous fluid, with a few small masses of tough mucus; five or six dejections. Resume fever mixture as before. R. Pulv. Dover., gr. xii. at night. Champagne, \mathfrak{z} ij. every three hours. 18th day—Has been quiet, and slept well; tongue clean; very little cough; abundant sibilant rales over both backs; half a dozen rose spots on the abdomen, and tenderness in the right iliac fossa; three dejections. 19th day—complains chiefly of pain in the back and in the soles of her feet, and of much debility; pulse 96; tongue moist; one dejection. Omit champagne; let her have broth. R. Ammon. carb., gr. vi. three times a day. 21st day—Mind clear; tongue clean; has very little cough; still slight crepitant rale at base of right back. Let her have boiled rice.

She improved pretty steadily, though slowly, after this date; she suffered chiefly from extreme debility and from pain in the back and limbs. Two ounces of sherry wine in twenty-four hours were substituted for the ammonia on the 22d day, and this was increased to four ounces on the 24th. She took baked potato on the 26th day, and sat up for an hour on the 29th, though still complaining of debility and costiveness. A pint of ale was substituted for the wine. On the 30th day she was allowed chicken, and sat up three hours, and on the 34th day was ordered two grains of quinine three times a day. 35th day—An erythematous eruption was noticed on the chest, and on the following day the whole surface of the trunk was covered with an eruption of fine purple points, slightly raised, and causing intense itching. A solution of borax (\mathfrak{z} i. to Oi.) was applied as a wash; the quinine was omitted, and sulphur and cream of tartar were given as a laxative, the bowels having been confined for two days. The itching ceased after the application of the wash, and on the following morn-

ing (37th day), the eruption had disappeared. She was able to sit up all day on the 40th day, and was allowed "house diet." The bowels continued to require laxative medicines, but she was discharged on the 44th day, Oct. 13th.

TYPHOID FEVER. (Dr. MINOT.)—Ann C., 22 years, married, a domestic, born in Ireland and resident of Boston, entered Sept. 12th, 1860. Patient states that her health is usually good, and that she was well till Sept. 5th, when she was ailing and chilly through the day. She awoke with headache and pain in the back and limbs, which has continued since. The catamenia appeared on the 7th, with more pain and in larger quantity than ever before. She is subject to epistaxis, but has had none during present sickness. There has been considerable diarrhœa. She complains of headache, dizziness, thirst, disturbed sleep and want of appetite; pulse 96; no rose spots. R. Mist. febril., \mathfrak{z} i. every three hours. R. Mist. cretæ, \mathfrak{z} ss.; tinct. opii, gtt. vi. after every second dejection. Liquid farinaceous diet. Sept. 13th (9th day)—Slept pretty well, without delirium; no dejection; pulse 96; tongue dry, with a thin white coat; headache; gurgling at the right iliac fossa, but no tenderness. Omit medicines; continue diet. 10th day.—No delirium; mind clear; tongue dry; no dejection; a number of rose spots scattered over the abdomen; some pain at the epigastrium. May have lemonade. 11th day.—No delirium; reports more comfortable; lying partly on the right side; two dejections; some sordes on the lips; tongue moist, with thin brownish coat. May have beef-tea. 12th day.—No delirium; two dejections. Was allowed bread and tea.

She convalesced steadily and rapidly from this time. The nights were quiet; the bowels acted naturally; she was allowed potato on the 19th day, and chicken on the 21st, when she sat up most of the day. She was ordered two drachms of the tincture of bark three times a day on the 22d day, and was discharged well on the 27th day, Oct. 1st.

The cases of typhoid fever here reported include all the more important ones which occurred in the west wing of the Hospital during the autumn of 1860. They have been presented mostly in the words of the Hospital record and in some detail, as it was thought that in this way the course and sequence of symptoms, and the effects of medicine and diet, would be best shown. "It will be seen that the treatment was in the main extremely simple, and that a large proportion of the cases recovered. The character of the treatment and the result may be ascribed to the fact that the disease was uncommonly mild during the season, or at any rate, that a majority of the cases in these wards were mild. Some of the patients recovered perfectly, having taken scarcely any medicine at all. Most of them took from one to four drachms of the Hospital "fever mixture" (composed of equal parts of the solution of acetate of ammonia, sweet spirit of nitre, and chloric ether) every few hours, where a moderate diffusible stimulant seemed necessary. In prostration, brandy, champagne and carbonate of ammonia were freely given, though many of the sick took no wine or spirit whatever. In all cases, beef-tea, milk, or some other nourishment, was given at intervals of at least three hours, whenever the patient would take it.

"In the case of Thomas W. (page 421), although the patient was

extremely nervous and desponding, the fatal result was unexpected, and was not explained by the autopsy. It is possible that a more liberal allowance of stimulants early in the disease might have had a beneficial effect. The fact that he had a murmur at the base of the heart, so strong that it was erroneously supposed to depend upon organic disease, indicates that the blood was probably in an impoverished condition."—M.

DYSPNŒA—DEATH—DISEASE OF THE HEART AND KIDNEYS. (Under the care of Dr. MINOT.)—Hiram F., 52 years, married, a mechanic, resident of Boston, but native of N. Hampshire, entered Oct. 13, 1860. Patient states his family is healthy, and is not subject to thoracic affections. For two years past he has noticed that he had some difficulty in mounting an ascent, or walking against the wind, and has been subject to attacks of pain, extending across the chest and down the left arm to the elbow. He was well as usual till about two months ago, when he supposes that he caught cold, and his respiration began to be labored, and inspiration was performed with a wheezing sound. The dyspnœa gradually increased, but he continued at work till two weeks since. He was up and about till within two days, but since then the dyspnœa has been so severe on any exertion as to confine him entirely. He is often obliged to rise in the night and go to the window; relief generally follows expectoration. Last night he had a paroxysm of unusual severity, seeming to threaten life. His appetite is still good. R. Naphthæ, ℥i.; syr. scill. et mucilag. acaciæ, aa ʒ ij.—℥i. p. r. n. Let him inhale the fumes of stramonium and nitre paper.

Oct. 14. Patient is dressed, but has an attack of dyspnœa on the least exertion; occasional cough, with expectoration of small masses of thick yellowish mucus. There was no relief from the naphtha, but he slept after a dose of morphia given in the night; well marked arcus senilis; chest well formed and developed; respiration slow and labored; percussion rather dull just below the right clavicle; inspiration short, expiration much prolonged, loud sonorous and sibilant rales, chiefly with expiration, heard over the whole chest, with the exception of the left base behind, where is considerable inspiratory crepitus; impulse and sounds of heart are feeble, and the latter are not heard in the back; a faint but distinct systolic murmur is heard below the left pectoral muscle; pulse 112, almost imperceptible; urine scanty, acid, sp. gr. 1027, no albumen or casts of the tubuli. Let him have a hot mustard foot bath; if no relief, a hot infusion of strong coffee without milk or sugar; if no relief, R. Antimon. tart., gr. 1-8, secundis horis till easy. Oct. 15th—A very severe paroxysm occurred in the night, lasting upwards of two hours. Assafoetida, morphia, hot gin, and ether by inhalation, were exhibited without relief. R. Sp. ether nitros, ℥ii.; tinct. scill., gtt. x. every hour till four doses taken; hot foot bath; sinapism to the chest before and behind—to be cupped over the loins to four ounces. 16th—Relief followed the cupping, which was repeated in the evening on account of a return of the dyspnœa; expectorated in the night about one ounce of serum, with a few round yellow masses in it; pulse almost imperceptible. Omit medicine. R. Ammoniac valerian, ℥i.; syr. zinzib. ℥i. m. ℥i. every two hours. 17th—Patient suffered extreme distress through yesterday, and in the evening venesection was performed, with immediate

relief. He took one drachm of the fluid extract of hyoscyamus in divided doses, slept well even while lying down, and says now that he is very comfortable. Expiration is much prolonged and wheezing; tongue moist, with thick coat; surface and extremities cool; lips livid; feet and ankles œdematous; no pulse at the wrist. He failed rapidly during that day, and died at 3 A.M., Oct 18th.

Autopsy. Three pints of serum were found in the right pleural cavity, and two pints in the left; both lungs œdematous; general hypertrophy of the heart, especially of its left side, organ weighing fifteen and a half ounces; aortic valves faced and stiffened by a large quantity of cretaceous matter; the aortic orifice admitted the little finger to the second joint; mitral valve slightly thickened, but not enough to interfere with its function, and the orifice was free; the cortical substance of the kidneys was lighter colored than usual, and decidedly granular.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 3, 1861.

MASSACHUSETTS MEDICAL BENEVOLENT SOCIETY.—At the last Annual Meeting of this association, it will be remembered that a committee was appointed to make suitable arrangements for a dinner, to be served at such time and place as they should select. This committee, with a promptness which cannot be too highly commended, made their report, substantially, on Saturday evening last, at Young's Hotel. Everything that good taste could suggest had been done on their part as well as on that of the landlord, Mr. Stevens, to render the entertainment worthy of the occasion, and it has rarely been our good fortune to be present at a more orderly and elegant repast. Between forty and fifty members of the Society sat down to dinner about six o'clock. Among those present, besides the President, Dr. Hayward, were the venerable Dr. Jackson, Drs. Bigelow, John Ware, Reynolds, Storer, Gould, and many other distinguished and prominent members of the profession of Boston and its vicinity. The Rev. E. E. Hale was also present and acted as chaplain. Dr. Hayward presided with his usual dignity and grace, and towards the close of the evening, on rising to speak, was warmly applauded; he made a few remarks in language most happily chosen, expressive of his thanks for the honor conferred on him by the Society; also alluding to the deep interest he had felt from the first in the object of its formation. As it was understood that no one should be called upon for a speech, it was some time before the example of the President was followed. Dr. Storer, in referring to the origin of the Society, made a well-timed allusion to the fact that it owed its existence to the suggestion of a member then present, and proposed his health, which was heartily responded to. Dr. Morland, to whom reference was made, replied briefly, returning thanks for the honor done him. Another pleasing incident of the occasion was the compliment paid to Dr. Jackson, whose health, on his retiring from the hall, was proposed by the President, and drunk by all standing.

It may not be out of place here to allude cursorily to the origin of this charitable association, which has now become of rapidly growing importance. In the autumn of 1856, the idea of an association for the aid of indigent and infirm or disabled practitioners was first suggested by Dr. Morland, then one of the editors of this JOURNAL, in a brief but well-written editorial. This led to the discussion of the subject by those most interested in the commencement of such a work, and it was decided that the matter should be brought before the Boston Medical Book Club, at its next annual meeting in December. This was accordingly done by Dr. Williams, who from the first had been one of the most active in favor of the project, and a committee of three was then appointed to consider the whole subject, and report thereon at a special meeting to be called for that purpose. In the mean time, correspondence was entered into with the secretaries of similar societies in England, who without exception most cheerfully afforded all the information asked, and expressed the warmest interest in the proposed plan, and everything was done to enable the committee to report understandingly.

In February, 1857, a meeting of the Club was called, at which their final report was submitted, which was decidedly favorable to the project. At this, and at a subsequent adjourned meeting, a constitution was framed, and a committee appointed to confer with the Councillors of the Massachusetts Medical Society, the result of which was the calling of a general meeting of the profession, for the purpose, if possible, of at once organizing a society. This was in March, 1857. The constitution, which had been previously framed with much care, was now adopted with but few, if any alterations, and the organization became complete by the choice of officers.

It is rare that a society of so general a character, and having such important interests, comes into being with so little to mark the event. The kindliness which the nature of the work naturally infused into the hearts of its founders seemed to leave little room for that spirit of contention so liable to be engendered by a popular discussion, and to end in noisy and ostentatious debate. If its subsequent progress has been correspondingly tranquil, it has been none the less sure, and such as to warrant the belief that, at no far distant period, the seed which was planted and nurtured with so much care, will begin to bear fruit, and that the founders of this noble charity may yet live to see the result of their efforts, whose influence will be felt to the latest generations.

PREScriptions, PHYSICIANS AND DRUGGISTS. *Messrs. Editors*,—Two or three druggists in this city have adopted the plan of copying the prescriptions sent to their shops, and returning the originals to the purchaser. With the majority of the druggists it is the rule to put the prescriptions on file, and number the package with the corresponding number of the prescription. The writer would suggest, that the older practice is far better, and safer for all parties.

To begin with, patients generally do not know what the prescription is sent back for. To these, of course, it is of no use. If they have occasion to use it, a copy is as good for them as the original.

In the second place, a physician sometimes wishes to refer to his original writing, and this, months after the prescription was written. The chances are ninety-nine at least, out of a hundred, that he cannot find it.

Again, the original should be kept by the druggist for his own protection. Cases have occurred more than once, in this country, where a dispute concerning a compound has existed, and in which it became necessary to know whether the druggist read wrong, or the prescriber wrote wrong. It is certainly fair to infer, that one is as likely to be the case as the other. The prescription on file in one place, and the partially filled box or bottle in another, would give protection to the two equally. It would be a safeguard for both, if the physician should always write upon his prescription paper the directions for using the compound. Druggists have sometimes been unfairly blamed for asking how a medicine is to be used, thus seeming to doubt whether the medicine written for was intended by the prescriber. This would be proper in case an excessively or unusually large amount of a narcotic were written for. If it were also stated whether the patient were a child or not, the druggist would sometimes see that the physician in his haste perhaps had made a mistake, for the knowledge of which he would have occasion to thank the druggist who notified him.

Any member of the profession who will take the trouble to look over an apothecary's file, will see how often some physicians must be thankful to the druggist for not mistaking one medicine for another.

A little more freedom of intercourse between the two professions would improve the knowledge of both, and tend to raise the standard of our drug stores. The American College of Pharmacy is doing all that it can to improve future practitioners of pharmacy, and if we are willing to give them a helping hand, the next generation of druggists may take a position, as chemists and pharmacutists, which they do not all enjoy now.

We need a class of apothecaries, every one of whom can analyze the drugs which he buys, and who can judge of opium, aloes and rhubarb, as well as he can of cigars and fancy goods. Every facility for intercourse between physicians and themselves will encourage them to educate their apprentices.

C. E. B.

THE CASE OF SIR BENJAMIN BRODIE.—The medical profession, both in England and abroad, have recently evinced the liveliest interest in the distressing case of this distinguished gentleman, who at the age of 84, has undergone the operation of iridectomy for impaired vision in both eyes. About last December his sight began to fail, and on the 12th of July of this year, Mr. Bowman removed a portion of each iris for supposed glaucoma. There seems to have been an error in the diagnosis, Mr. Hodgson and Mr. White Cooper regarding the disease as senile cataract, and did not recommend the operation of iridectomy. The left eye is very little improved, if at all, and in the right vision is completely lost; but as there is now a cataract very evident in the latter, sight may be restored by extraction of the lens, provided the eye is not glaucomatous. The high position of the unfortunate and much respected sufferer renders the case especially interesting in relation to the operation of iridectomy, one of equivocal value, which is now being so extensively tried.—*N. A. Med.-Chir. Review.*

FALSE MEMBRANE IN DIPHTHERIA.—In several good cases, Dr. Beale could find no traces of fungi. In one specimen in which vegetable organisms were discovered, they were proved to be of accidental presence. The membrane seemed to be delicately fibrillated in its entire

thickness, and contained a number of small faintly granular corpuscles. In some cases the membrane was composed of cells, closely agreed in character with pus-corpuscles. Several interesting cases illustrating the general and minute structure of the diphtheric membrane may be seen in the last volume (No. X.) of the "Transactions of the Pathological Society," pp. 311-334.

PROFESSOR VELLA, guided by the experimental researches of M. Claude Bernard, some time since completed a course of investigations in order to test the alleged antagonistic powers of woorara and strychnine, and his investigations considerably strengthened the belief, already prevalent, that the two agents stand in relation to one another as poison and antidote. It would now appear that M. Thiercelin has advanced a step further, and, struck by the counteraction of the artificially produced convulsions by woorara, has been led to administer the drug in the treatment of several convulsive diseases, more especially epilepsy, and with most marked effect.—*London Lancet*.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, DECEMBER 29th, 1860.

DEATHS.

	Males.	Females	Total
Deaths during the week,	36	29	65
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	39.4	37.1	76.5
Average corrected to increased population, . . . . .	..	..	83.9
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
10	2	2	8	0	0	0	2

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.136	Highest point of Thermometer,	38°
Highest point of Barometer,	30.632	Lowest point of Thermometer,	13°
Lowest point of Barometer,	29.500	General direction of Wind,	N., N. E. & N. W.
Mean Temperature,	27°.50	Whole am't of Rain in the week	1.805

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

		BAROMETER.				THERMOMETER.				Snow.	Mean Amount of Cloud. 0 to 10.
		7 A.M.	2 P.M.	9 P.M.	Mean Height.	7 AM	2 PM	9 PM	Mean Height.		
Monday, Dec. 17,		29.68	29.60	29.61		25	35	34			
Tuesday, " 18,		29.48	29.31	29.12		33	37	38			
Wednesday, " 19,		28.91	28.95	29.7		38	36	34			
Thursday, " 20,		29.21	29.22	29.21		16	13	19			
Friday, " 21,		29.16	29.22	29.34		13	14	0			
Saturday, " 22,		29.45	29.50	29.54		12	4	4			
Sunday, " 23,		29.60	29.66	29.64		17	6	5			

BOOKS RECEIVED.—Report of the City Registrar, of the Births, Marriages, and Deaths, in the city of Boston, for the year 1859.

MARRIED.—In Holliston, December 24th, Dr. D. Wayland Jones, of Medfield, to Miss Joseph D., youngest daughter of Elias Bullard, Esq., of Holliston.

DIED.—At Attleboro', Dec. 17th, Ephraim Knapp, M.D., aged 80.

DEATHS IN BOSTON for the week ending Saturday noon, December 29th, 1860, 65. Males, 36—Females, 29.—Accidents, 2—apoplexy, 1—disease of the bladder, 1—congestion of the brain, 2—disease of the brain, 3—bronchitis, 3—burns, 1—cancer, 1—consumption, 10—convulsions, 2—croup, 2—debility, 1—diarrhea, 1—diphtheria, 1—puerperal disease, 2—scarlet fever, 2—typhoid fever, 2—disease of the heart, 2—intemperance, 2—disease of the kidneys, 1—congestion of the lungs, 2—inflammation of the lungs, 8—peritonitis, 2—premature birth, 3—suicide, 2—unknown, 6.

Under 5 years of age, 19—between 5 and 20 years, 5—between 20 and 40 years, 16—between 40 and 60 years, 17—above 60 years, 8. Born in the United States, 43—Ireland, 17—other places, 5.

THE

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THURSDAY, JANUARY 10, 1861.

No. 24.

PUNCTURE OF THE FOOT, FOLLOWED BY TETANUS—SUBCUTANEOUS INJECTION—DEATH.

[Read before the Boston Society for Medical Observation, Jan. 7th, 1861, and communicated for the Boston Medical and Surgical Journal.]

BY WILLIAM READ, M.D., FORMERLY PHYSICIAN TO THE BOSTON LYING-IN HOSPITAL.

NATHAN JENKINS, æt. 41, of rather spare habit, and nervous organization, regular in his habits, about 8½, A.M., Nov. 1st (Thursday), while working at his trade on a building, jumped down from a height of about five feet upon a board, through which a nail was sticking, and gave himself a punctured wound in the ball of the left great toe. By his own estimate, the nail went in an inch, and was with difficulty extracted. It produced most intense pain, extending from the wound over the whole body. From this time until noon, he was unable to procure a conveyance to take him to his boarding house in this city, and had nothing done except the application of a slice of salt pork, and a dose of brandy, neither of which mitigated his sufferings in the slightest degree. He was finally brought home in a chaise, completely chilled through, his teeth chattering, and his extremities cold.

2½, P.M.—Found him rolling in agony. Refers the pain to the puncture, with occasional flashes up the leg, and ending in the groin, where it was most excruciating. Mind wandering. Under this state of things, I proposed a consultation with Dr. Geo. H. Gay, who coincided in opinion to lay the puncture open by a free cut, which was accordingly done. A poultice, in which a quantity of tr. arnica was mixed, was then applied about the whole foot, and one grain of opium was directed to be given every hour. Previous to Dr. Gay's arrival, I had given him five grains, in two doses, half an hour apart.

6, P.M.—Still suffering from severe pain. Its character, however, has changed. He now complains only of the pain in the seat of injury—none at all in the leg or thigh. Objects to pills,

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therefore substitute sol. morphia (sulphate), one eighth of a grain every hour.

Nov. 2d, 7½, A.M.—Reports that, soon after taking the morphia, began to sweat, and has continued to sweat profusely since. Slept more than half the night. There is one spot about as large as the head of a nail on the upper side of the toe, over the original puncture, as if the nail had gone through the joint as far as the skin on the upper side. Has had a dejection, and passed urine freely. Continue treatment.

P.M.—Has passed a comfortable day, and now feels quite easy, except a constant fear of "lock-jaw." To have a double dose of morphia previous to going to sleep, and continue poultice.

3d.—Reports better. Slept all night. Took but one dose of morphia. Soreness gone from upper side of toe. Incision remains open. No discharge from it. No pain there. Can move toe-joint more freely, but with some pain. No perceptible swelling.

4th.—Foot perfectly easy. Tongue clean. Appetite good. Feels well. Left him, with directions to abstain from use of his foot. Apply the poultice through the next day, then wrap the joint in a cloth wet with tr. arnica.

From this time he went on improving till the 7th, when, as he was sitting at the table, he was seized with a pain in his back, and difficulty of swallowing, accompanied with an uneasy sensation in the upper part of his throat.

Nov. 7th, 3, P.M.—Is very much excited with the fear of lock-jaw; pulse 100, full; skin moist; lips and mouth dry. Cannot open the jaws quite an inch. Speech affected. R. Ext. cannabis Ind., 3 ss. Ft. pil. x. To have one every three hours. Inhale ether, *pro re nata*.

Feeling that in the progress of the disease—and the symptoms left no doubt of its nature—he would soon be unable to swallow in sufficient quantity to admit of administering as much sedatives as might be thought judicious, I determined to try the effect of subcutaneous injections. Dr. Ruppaner, well known to the profession in this city for his very successful employment of this means of cure in neuralgia, kindly offered his assistance to give them a fair and thorough trial.

6½, P.M.—Pulse 105. Mouth and tongue as at last visit (dry and slightly coated); sweating freely, with warm perspiration. Had a slight spasm at 5, P.M. Feels less stiffness about the jaws, and can open them a little wider. Cannot swallow, except with the greatest difficulty. Could not swallow the pills, and the solution of morphia has been given instead. Speech rather more natural. Has not the slightest pain or tenderness at the seat of original puncture, and can move the joint with perfect ease and freedom. Injected half a drachm of the solution of acetate of morphia, of the strength of one grain to a drachm of sherry wine.

This was thrown into the inside of the right leg, about midway between the knee- and ankle-joint, just at the inside of the saphenous nerve. Immediately after this injection, the pulse fell to 89 and 90 in the two succeeding minutes, and it was more soft and compressible. No nausea followed. The only sensation noticed was a little prickling at the spot where the injection was thrown in. To omit the pills, but continue the solution of morphia and the inhalation of ether, p. r. n.

Nov. 8th, 8, A.M.—Pulse 84. After injection last night, slept for an hour. Jaws relaxed, and could be moved freely. At about midnight, the pain and spasmodic action of the muscles of the spinal column began to return. Ether was given, but causing nausea and attempts to vomit, it was stopped and not resumed. The solution of morphia was swallowed with the greatest difficulty, and less, probably, was administered, on this account, than ought to have been under the condition he was in. Is now (8, A.M.) lying on his back, with the head thrown back and strongly fixed in that position. Cannot lie in any other position. Jaws less than half an inch apart. Injected right arm with half a drachm of the solution used last night. Pulse 90 during the first minute afterwards; 84 during the second; and 80, the third. This injection not having any effect on the pain in the spinal column, a second injection, of equal strength, was thrown in, in the left lumbar region, at the angle formed by the spine and the crest of the ileum, at the place of the greatest tenderness. No nausea succeeded, although the quantity of morphia thus injected was a whole grain. Pulse after second injection, 90. It then gradually subsided to 78, 82; slow when perfectly quiet—about 70; but when spasms came on, it rose to about the rate of 100 for a part of a minute. The above rate—78, 82—was for two consecutive minutes. A teaspoonful of water put in his mouth is swallowed only after long and painful exertion. Had two profuse discharges of urine through the night. No dejection.

1, P.M.—Has had no pain at all in his back since the injection this A.M. Jaws in same condition as reported this morning. Spine has recovered its flexibility. All he complains of now, is, a sense of constriction about the throat, as if he should choke. Injected, opposite the seventh cervical vertebra, half a drachm of a solution of morphia, four grains to the drachm of sherry wine. Pulse, before injection, 80; afterwards, 104. No nausea.

6, P.M.—Pulse 88, rather irregular. Skin moist. Reports more frequent spasms since last visit. At times, springs up from the bed. Pain has returned, to a limited degree, in the back. The side of the neck, where the injection was thrown in at 1, P.M., more free. Muscles on the other side tense and hard. Mind clear. Injected fifteen drops of solution of atropia—one grain to twenty-four drachms—on left side of neck, opposite seventh vertebra. The

immediate effect of this was an increase in the spasms. Feels the prickling of this injection much more than that of the morphine. Feels it all over. Pulse, after injection, 94. Five minutes afterwards, the pulse rose to 140. Says he feels no pain at all.

11½, P.M.—Reports that he slept an hour after the injection at 6, P.M., without waking. After a short interval, slept again for about the same length of time. Since then, has been growing worse, with more frequent spasms. Pulse 140, most of the time (according to his attendant). The opisthotonos is now strongly marked. Head turned over left shoulder. Cervical muscles very tense, and clavicles drawn up so as to cause deep hollows on each side of the neck. The slightest touch, or breath of air, or jar, brings on an attack of convulsions. Cannot swallow at all. Teeth separated only about one fourth of an inch. Respiration free, and normal in frequency. Has been wandering most of the time since last visit. Complains of great agony (or, as he terms it, cramp) during the spasms. Injected solution of morphia—three grains to a drachm—in four places, half a drachm each, viz., in the spot of most pain at the lower part of spine, on left side, where an injection was thrown in yesterday; on inside of right thigh, just above the knee; on the right shoulder, just in front of the acromion process of the scapula; and on the left side of the neck above the clavicle. At the time of the injection the pulse was 140. It immediately fell to 104, where it remained. The spasms diminished, and he dozed off to sleep before the visit was finished. Patient has been much incommoded through the whole case with collection of saliva or mucus in his throat, requiring the constant use of a handkerchief to wipe away. He was ordered to be etherized as soon as the return of the spasms showed the effect of the injection to be wearing off, and its use pushed to the extent of producing muscular relaxation if possible. No dejection, and no urine.

Nov. 9th, 6½, A.M.—Has slept most of the time since last record, till within half an hour. No severe spasms or pain. Ether has been given only during the last half hour. Is now strongly convulsed. Head cannot be moved, and back very stiff. Says he has no pain, but is choking to death. Voice almost a whisper. While an injection was being made ready, a most violent attack of convulsions came on, and although it was thrown in as speedily as could be done, just below the clavicle on the right side, of the same strength that had been used the night before, it had no effect to mitigate the force of the spasm. The whole frame became rigid, the eyes fixed and staring, the body and head bent far back, and every tendon and muscle hardened into cords, under the skin. There was an apparent inability to breathe, from constriction of the respiratory muscles about the lungs, and the heart came to a dead stop for several seconds, as if involved in the general condition. This state of things continued for a while, but abating

somewhat, the pulse returned, very feebly and intermittent; the respiration went on as if in a firmly bound tube, the ribs remaining fixed during the time, and he shortly breathed his last.

The relative fatality of tetanus, when arising from a traumatic source, is rather more than 50 per cent. Of 128 cases collected by Mr. Curling, 58 terminated successfully, and 70 died. Of the latter, 53 were fatal within eight days of the appearance of the symptoms; 11 on the following day; 15 on the second day; 8 on the third; 7 on the fourth; 3 on the fifth; 4 on the sixth; 3 on the seventh; and 2 on the eighth day after the injury, but very few after a longer period. One case is reported where death followed a scratch in a quarter of an hour; others where the fatal result took place in twelve hours, sixteen hours, twenty hours, and twenty-two hours from the appearance of the tetanic symptoms.—(*Copland's Med. Dict.*, Art. Tetanus.)

The length of the period of incubation seems to bear some proportion to the severity and fatality of the attack. The longer the interval between the injury and the appearance of the symptoms, the less acute and dangerous is the disease (*loc. cit.*), and, *vice versa*, the more rapidly the disease follows its exciting cause, the more severe and fatal does it prove.

The treatment may be divided into surgical and medical. Both have been carried out to their utmost extent, and the final summing up of the whole matter is, that all modes of treatment have succeeded in certain instances, and on the other hand all have failed to cure. In view of this fact, then, it cannot be said that, by any particular course, we offer the patient a greater chance of recovery than what has resulted from any other.

But while local treatment is admitted by all writers to be useful, and most judicious in all cases at first, the main reliance, after the case resolves itself into one of actual tetanus, must be upon constitutional treatment. Of this, the books and periodical literature teem with varieties. All sorts of applications intended to affect the nervous system, through the agency of the spinal cord; bloodletting; baths of all kinds; purgatives; alteratives; stimulants; antimonials; sedatives; narcotics; have all, by turns and together, been brought to bear upon the disease, and over all is written "failure."

Nevertheless, amidst all this want of success, there is one settled point—That where the cases have recovered, the result seems to be due, in traumatic tetanus especially, to the sedative effect of the remedies exhibited. Thus, tobacco, hydrocyanic acid, the resinous extract of Indian hemp, opium, both pure and in the form of its salts, stramonium and belladonna, when combined with such other treatment as best fits the system to receive the full effect of their action, have given the greatest satisfaction, and promoted the cure in the greatest number of cases.

In Mr. Curling's work, as quoted by Dr. Copland, are also

found instances of injecting into the veins the watery solution of the extract of opium and stramonium, and also a solution of acetate of morphia, but with no marked benefit over other treatment.

The case detailed above is probably not different in its symptoms and course from those which have been from time to time put on record by various reporters. It is interesting mainly from the kind of treatment which was adopted, and which, if it did not bring about the wished-for result, was, at least, the means of mitigating, to a great degree, the sufferings which, under ordinary conditions, are the inseparable accompaniment of this affection.

Experience has demonstrated, that diseases of the nervous system which manifest themselves by pain along the course of the nerves, such as the various forms of neuralgia, are more speedily relieved and eradicated by subcutaneous injections than by any other means. (For example of this, see Dr. Ruppner's Report, *BOSTON MEDICAL AND SURGICAL JOURNAL*, April, 1860, *et seq.*) In many instances, the cure is immediate; while in others, more than one trial is necessary before the desired result is attained. This success shows what a powerful effect can be produced in this way, and how much more efficient, remedies become, when subcutaneously administered, so as to act directly on the affected part, than when they are exhibited in the ordinary way. In view of this fact, and with the knowledge that it was vain to expect from any known and applied method of treatment, any certain results, it was determined to apply them faithfully and persistently, in this case. The immediate effect was to allay the spasms, ease the pain and cause sleep; three benefits, which, alone, would give this mode of administering remedies a high place among others. But it also promised other advantages. Being applied locally, subcutaneous injections can be employed throughout the whole of the progress of the affection, and to any desired extent. This makes us independent of the state of the throat, which, in the case reported, very soon after the tetanic symptoms made their appearance, rendered it impossible to swallow anything but the thinnest liquid, and only the smallest quantity of that even. Indeed, it is not stating too strongly to say that any amount of sedative in solution, sufficient to have exerted any effect upon the system under such a degree of nervous excitement, could not have been administered in any other way. We have, then, in subcutaneous injections, a mode of administering remedies which promises to accomplish all that can be attained by the exhibition of remedies by the mouth, even by aid of the stomach tube, unaccompanied by any derangement of the stomach so far as unfitting it for nourishment, where that can be taken; entirely independent of that condition of the throat which, in many cases, renders swallowing impossible; which can be pushed to any extent, no matter what may be the general condition of the patient; and which does not at all interfere with, or prevent, any other treatment that may be thought desirable at the same time.

The effect of the injections was prompt and powerful. Its action was first signalized by the acceleration of the pulse, which came on immediately after the injection had been thrown in. A prickling sensation also was noticed, which gradually extended throughout the body and extremities. These symptoms were succeeded by a diminution of pain and relaxation, to a certain extent, of the contracted muscles. And even when the spasmodic action was decided and strong, there was none of that suffering or expression of agony which is sometimes witnessed, until after the effect of the injection had begun to pass off. The contrast between the condition in which the patient was, when under the influence of the injections, and that which was the result of etherization, carried as far as could be, was marked, and greatly in favor of the former.

There was a noticeable difference in the effect of the injections, both upon the circulation and the muscular tension. The action of the acetate of morphia appeared to be purely and directly sedative, reducing the pulse, diminishing the pain, relaxing the muscles and causing sleep; the atropia, on the other hand, acted both as a sedative and a stimulant. While it more speedily and effectually put an end to the pain, and, like the morphia, induced sleep, it appeared to cause an increase of the spasms at first, accelerated the pulse, and brought on slight mental aberration. Reasoning from analogy, it would have been worth while to have given nicotine a trial, for in a case reported (*Braithwaite's Retrospect*, No. 38, p. 46, American Edition, from *Medical Times and Gazette*, July 31, 1858), it proved to be the means of cure; and the alleged power of tobacco in overcoming the effect of strychnine, adds to the probability that it will be found a very efficient remedy, as the similarity between the convulsive action caused by strychnine and the spasms of tetanus affords a ground for belief that what will counteract the one, will also operate favorably on the other.

Another fact brought out in the course of the treatment is worthy of notice. It is this:—A portion of the nervous system can be brought under the effect of a sedative while the rest is unaffected. *E. g.*, on the 8th (the second day after the appearance of the tetanic symptoms), the injection caused a relaxation of the muscles on that side of the neck, while the condition of the other side remained the same as before. So, also, the injection thrown into the arm, at the same visit, produced no effect upon the pain in the back, which was, however, immediately relieved by an injection in the place where the pain appeared to commence. May we not, then, in a properly graduated subcutaneous injection, possess a more powerful and serviceable local anæsthetic, than has as yet been employed. When we take into consideration the comparatively feeble effect of endermic applications, when compared to this way of reaching the nervous branches, and the danger which must

always attend the freezing process when applied for the purpose of deadening the sensibility of living tissue, it is worthy of trial.

The result of the case reported above was fatal, and in so far as a successful result is necessary, to give to a remedy, or mode of treatment, prestige, and a claim for adoption generally, it cannot be adduced in favor of subcutaneous injections, as a means of cure in tetanus. But the same objection applies to all other kinds of treatment, and therefore the method adopted in this case is no less worthy of confidence and repeated trial than any other, and its good efficacy in abating the agony of the spasms, allaying the irritability and sensitiveness of the patient, and generally of alleviating the sufferings of this most awful affection, certainly demand for it a fair and thorough trial.*

THE VALUE AND THE FALLACY OF STATISTICS IN THE OBSERVATION OF DISEASE.

A BOYLSTON PRIZE ESSAY, BY DAVID W. CHEEVER, M.D.

[Continued from page 456.]

It is impossible that we should arrive at a certain medical comprehension and science by mere observation, and the collection of so-called experiences and facts, of themselves; for this is only the first step. The savage, wandering in the forest, sleeping without shelter, and dependent on the wind or weather for power of locomotion and the means to reach his prey, has no doubt always been a keen and constant observer of the heavenly bodies and the clouds during all the nights of his existence. But his experience, unaided by comparison and generalization, has never taught him the true magnitude, or motion, or relations of the stars, nor the simplest laws of meteorology, as laws, and not as successive and empirical facts. Nor would the physician ever obtain, by mere observation, whether by palpation, auscultation and percussion, or by autopsies and microscopical and chemical examinations, however minute, a true insight into the real condition of his patients.

These are all means of knowledge, but, unless aggregated and compared, they must remain only isolated, empirical facts. We cannot wholly separate theory from observation; even by substituting figures for words. We must be careful only that our theories are based on constant and recurring facts. Even the purest empirical writer on Medical science, styles that science, "*the phenomena of life, with their relationships, classified and arranged.*" And although anxious to have it understood that science is not

* Since the above was written, my attention has been called, by Dr. Ruppaner, to a report of a case successfully treated by subcutaneous injections. For details, see *British and Foreign Medical-Chirurgical Review* for October, 1860. Cap. Therapeutical Record, p. 559:—"On a case of Traumatic Tetanus treated with success by injection of Sulphate of Atropia."

the inductive or reasoning process added to facts, nor a theory built upon facts, yet he equally includes the classification and arrangement of phenomena, under his definition.

Such classification, dependent on the identity or similarity of certain groups of phenomena, and their dissimilarity to others, necessarily requires comparison and generalization. And although some exercise of invention or intuition may lead to useful discoveries, afterwards confirmed by experience, yet *à priori* conclusions are but too apt to be premature. Induction; reasoning *à posteriori*, which forms the distinctive feature of the Baconian philosophy, is the safer course in all sciences. Theorists have uniformly neglected it; but careful observers have attained their most important results by following its laws. By it, or by observation and *experiment*, that *rexatio naturæ*, as Bacon calls it, the physical sciences have alone advanced. So all other branches of knowledge, which are, from their nature, incapable of demonstration, must proceed by comparing observations, and analyzing experience, rather than by either *à priori* theories, or simple empiricism, to establish general principles, and natural laws. But what is called a law in natural science, differs somewhat from the popular use of this expression. A law of Nature is nothing else than a general expression of the conditions under which certain phenomena occur, so far as these conditions are known to us.

We cannot account for a phenomenon by referring it to a general law. The law, or generalization, is governed by the phenomena, and not the phenomena by the law. So, for the sake of illustration, the laws of grammar are the expression of the conditions under which certain words and expressions usually occur. And when we say that an expression is at variance with the laws of grammar, we mean only that it differs from the more general usage which constitutes those laws. Good usage does not depend upon grammar, but grammar upon good (general) usage. A law of nature, also, has no coercive power whatever: whenever we speak of phenomena as *governed* by law, we imply some higher *will*.

The common fallacy that "the exception proves the rule," while it may show our generalization to have been imperfect, really means only that the exception indicates by its rarity the existence of some more general mode of action, to which the majority of phenomena can be referred.

They, therefore, who seek to establish positive laws of disease by the accumulation of isolated facts of experience, succeed, it is true, in proportion to the breadth of their researches, but cannot, as long as their observations are finite, arrive at absolute laws. Particularly in the complex and vague field of medical experience, it is still more difficult to establish and verify general principles, or laws.

Another source of fallacy lies in the common acceptance of the word *cause*. Usually held to mean the power which originates any

action, it logically includes also the conditions of its operation. Thus, heat, generating steam, is the power which moves the locomotive; and its machinery, the condition of its progress. Both would be called the cause of motion; though, properly speaking, one is a dynamical, the other a material cause. So, in the human body, vital force may be the power, and respiration the condition of life; or miasmata might be the cause, and intermittent fever the condition of disease. Too much care cannot be taken, in investigating that most important branch of science, the causal connection of empirical facts, to bear in mind this difference in the signification of the term *cause*.

It is obvious that the causal connection of isolated events in medicine is not to be reached by any single, simple process of experience or numbers. For the course of reasoning by the inductive process is, first, observation; second, comparison and generalization; and, third, the establishment of causal connection: and when we know *all* the conditions and modifying processes, we can establish a natural law. Therefore the observer needs, a mind to guide observation; observation to acquire facts; logic to estimate the value of observation; analysis to separate complex facts; analogy to compare them; statistics to average individual facts; the calculation of probabilities to define, as accurately as possible, the value of his results; and many aggregates, and almost infinite observations, to generalize laws.

Why medicine should fail in meeting our requirements, we can best consider by comparing it with the more exact sciences.*

The most perfect kind of human knowledge is that embraced by the pure mathematics. What are called the primary existences, as space, time and number, we cannot conceive *not* to be. Not only are they necessary existences, but all men who think about them must get very nearly the same notions concerning them. The measure of space, time, quantity and magnitude is number: number has the same meaning for all mankind, and it is the only thing about which difference of opinion is impossible. Numbers being independent of the things counted, and free from the errors of language, we can reason upon them, as we can upon nothing else. Arithmetic, Algebra and Geometry, and the whole of the pure mathematics, being sciences of quantity, and hence of numbers, and being freed by their symbolic expression from the errors of language and the errors of sense, are, as far as they go, perfect sciences. Arithmetic and algebra prepare, by their numbers, instruments of calculation for the use of the other sciences. The simplest use of these instruments of calculation is in the science of astronomy; which is eminently a science of numerical relations, as well as of pure observation. Calculation is the secret of the success of this science, and also of statics, dynamics and optics. These

* Vide "British and Foreign Medical Review."

are all sciences treating of those simple relations and properties of matter which admit of being represented by lines, figures or symbols. The observations on which these sciences are based are of the simplest kind; and they offer the example of sciences of observation not much inferior to the pure mathematics in accuracy. Yet fallacies exist even in these sciences. In astronomical observations the senses are fallible, and the nicest instruments admit of error. But the astronomer rectifies his errors by multiplying his observations: he has recourse to the numerical method, and takes the *mean* of as many observations as he can procure.

Chemistry is a science which makes extensive use of calculation, but is still more dependent on the exercise of the senses, since the properties of matter which it investigates are more complex and obscure than those of the heavenly bodies. The chemist, however, has the powerful aid of experiment; for he can create and re-create almost at will. He can make the objects of his investigation identical; he need determine them but once; he can use them also to determine others. But figures pervade the whole science, and all its statements are made in the numerical form.

A numerical theory—the law of definite proportions—converted the art of chemistry into a science: a position which it might not have reached by the mere questioning of nature—by experiment alone. The chemist, like the astronomer, has to multiply his observations and experiments to avoid error. Calculation, and his power of making the matter he employs identical with that which he has already ascertained, give perfection to his science. He is capable of synthesis, as well as analysis. But when he reaches the *organic* world, synthesis fails. And here we have the first sign of the uncertainty, the first shadow of the difficulty, which awaits the observer at the threshold of *Life*.

The mechanical properties of matter are investigated with as much zeal as its atomic affinities. A knowledge of them can be obtained only by repeated experiment, because they resemble each other, but are not identical. The mechanic, therefore, has recourse also to the numerical method: to ascertain the strength, or the durability of wood, iron or stone, he must take the mean of many trials.

Astronomy and chemistry, the one a science of observation, the other of experiment, owe their perfection mainly to calculation. The former is the more perfect, since it deals with simpler relations of matter, and depends less upon the exercise of the senses, than the latter. But the latter owes its superiority over mechanics to the power which it possesses of making the objects and results of its experiments identical with those which it has already ascertained, and which bear the same name.

The certainty of a science seems, therefore, mainly to depend upon the extent to which it admits of the application of numbers and calculation, or of the numerical method, to rectify its errors.

It is not surprising, then, that much should have been hoped from its employment in the notoriously uncertain science of medicine, but only that it should not have been earlier applied.

The imperfections of medicine as a science are inherent in the subject itself.

“The physician, unlike the mathematician, is not the creator of his own science; unlike the astronomer, he has no simple relations of matter to deal with; he cannot, like the chemist, make any two things which he examines or uses identical; the objects of his study are more variable than the winds and tides; and the materials with which he works infinitely more difficult to adapt to their uses than the matter which the mechanic or engineer presses into his service. In all his preliminary studies (with the exception of inorganic chemistry), in all his original inquiries, in all his practical applications, he encounters the varying effects and complicated phenomena of Life.”

True observation, or the union of reason and perception, the diligent use of the senses, not ignorantly or empirically, but knowingly and with a plan, can alone afford us any hope of penetrating to the arcana of the living functions in health and disease.

Medicine is a science rather of observation than experiment: for the latter method is impossible in the natural history of disease, and of very limited and doubtful application in the therapeutical art. We cannot isolate individual influences from the magic circle of the functions of the body; nor thus place them in a distinct and favorable light for single, or repeated experiments. Were this possible, we should still be under the influence of one-sided and special views, and be in danger of seeking for that only which we wished. It is doubtful, moreover, whether we should be much the wiser, even if we could produce artificial diseases, or experiment with drugs: for the causes would be so complicated and numerous, that we could not judge of the effect of each.

As observation is, then, from necessity, our chief method of acquiring medical knowledge, we might expect numbers, which express only aggregated, classified or generalized observations, to be of much aid to us in our pursuit.

After these necessary preliminaries, which have taken up so much space, have been duly considered, we have found by their statements, that the senses alone, and numbers by themselves, can do nothing; that the natural history of disease, though the most important part of medical knowledge, is the hardest to obtain, while the want of it has given rise to conflicting theories; and that the student of medicine is oppressed by the multitude of isolated facts. We have glanced at the origin and history of the numerical method, and at its wide employment now in various sciences; and have shown that experience alone will not serve us, but that we must look for the causal connection of events: and while they are to be sought by analysis and synthesis, yet since generalization is peculiarly difficult in medicine, we finally must agree with the logician, that no effect or event can be predicted with certainty in our science or art. We have shown why the science

of medicine is superior to the art; that the numerical method is even more inaccurate in the latter than in the former: also, that medicine, not being entirely empirical, we must classify and arrange our observations. We have endeavored to explain why induction is the only true way to arrive at laws; and to prove, by the true definition of the term law, why finite observation cannot establish absolute ones. And having shown that various mental processes, as, logic, analogy, comparison, &c., were needed in true observation, we have lastly compared medicine with the exact sciences: and inferred, from its great advantage in them, that the numerical method should be tried in the science of medicine.

We are now ready, therefore, to judge of the value and the fallacy of statistics in the observation of disease. It will be more convenient to reserve their value for our final consideration, and we will first treat of the *Fallacies* of the numerical method, as applied to the observation of disease.

Such fallacies may, in the nature of things, exist either in the object, or the observer; may depend on some inherent defect in the thing observed, or upon defective observation on the part of the person observing. And first, with regard to the fallacies in the object.

The value of our observations depends on both their quality and their number. The most positive results in any science are attained just in proportion as the facts compared, which form the basis of the statistics, are identical. Identity of facts, submitted to the numerical method, cannot be found in medicine. No series of phenomena constituting disease, whether occurring in different patients, or in the same patient at different times, can be identical. Even the most exact of symptoms, those included under the head of Physical Signs, cannot be expressed by symbols, or figures; nor are their relations so simple, nor their analysis so exhaustive and complete, as to warrant their being always considered *the same*. Although the numerical method is not a mere substitute of figures for words, yet its results will always be accurate in proportion to its approximation to figures, which are ever one and the same. No diagnosis can be so minute, no malady so defined, no human body such a machine, as to give identical results. Therefore, not only the demonstration of pure mathematics, but the identical certainty of experimental chemistry, must be foregone in medical science. But if no identical units of observation can be obtained, our next care must be to obtain those which are strictly *comparable*; for without this condition is fulfilled, our conclusions will be not only inexact, but of no value whatever. There is, first of all, great room for error in the selection of our cases, and in the circumstances under our control. The disease must be well defined and carefully diagnosed; and in this respect, acute are much preferable to chronic maladies, for the latter are, at best, of very difficult classification. It is obvious that cases of

a different nature may be confounded together, and improperly compared in statistics. The symptoms are of little value without a just notion of the cause of the disease, and the real nosological whole which the entire group of symptoms represents. Thus, a bellows murmur in the heart may depend on a peculiar constitutional disease, as rheumatism; on ossification of the valves, from age; on disease of the lungs, reacting on the circulating organ, or on some peculiar state of the blood itself. Therefore it would not do to compare, for the purpose of tabulating and averaging, every case which presented a valvular murmur in the cardiac region, without a knowledge of other concomitant disease, or the nature of the cause.

The patients must also be placed under the same circumstances of attention, diet and treatment, if the observations are to be continued through the natural history of the disease. But there are many circumstances beyond the control of the physician.

It is not, however, absolutely necessary that those things beyond our control should be included in the laws of comparable cases, nor that the want of them should invalidate our conclusions. It is true that we shall not get strictly comparable facts without them. But since the variability is known and limited, we can remedy it, in a measure, by the application of the numerical method.

But this requires the application of very large numbers of observations. This is well exemplified by the state of Life Insurance Companies in America. Known causes of disease and laws of vitality are carefully collected and compared, but a vast number of unknown ones yet remain beyond control. To remedy these errors, the number of facts must be enormous, and extend over a long period of time. A sufficient number of years have not yet elapsed, since our country became populous, to furnish facts enough. And the result is, that the mortuary statistics of American Life Insurance Companies are far inferior in reliability and exactness to those of the older countries; and hence, as a secondary consequence, the profits and success of such companies are far more precarious here than there.

So much is this the case in medical statistics, that the more modern advocates of the numerical method charge even Louis with having based his conclusions on too few facts. The application of very large numbers to the calculation of probabilities, we shall consider further on.

The larger the number of cases, the nearer we approach to demonstration. And to secure the greatest comparability, with the fewest sources of external error, and the best chance to correct them by multiplication, we must employ "the simplest cases of a similar kind in the smallest possible field; and the same kind of effects under the greatest variety of circumstances; and, finally, collect and compare the results."

Besides even the impossibility of procuring identical facts, or

the chance of strictly comparable cases, we shall find another source of error, even in those cases which are comparable, in the individuality of each case. Patients are not bundles of symptoms, nor are diseases always bounded by the same formal laws. And it has been well said that we cannot weigh a cough, measure the exact extent of a pain, nor determine fever by the atomic theory. Idiosyncrasy, or the peculiarities of the individual, are as anomalous and impossible to reduce to rule and measure, as the passage of the clouds. Nor are they infrequent. While similarity is frequent, there is usually enough unlikeness for comparison. Two cases of disease are as rarely identical in all their features, as are the faces of the patients. No depth of observation, no accuracy of numbers, no vastness of tables, and no grasp of memory, will ever enable the practical physician to reduce the case before him to real rule and measure, or to dispense with the necessity of considering each patient by and for himself.

[To be continued.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

Nov. 26th.—*Pneumothorax*. Dr. JACKSON reported the final result of a case that was under his care not long ago in the Hospital, and of which he has already given a partial account (see JOURNAL, Oct. 11th). The patient had recently died under the care of Dr. Samuel Alden, of Bridgewater, from whom Dr. J. had received the history of the case, with the organs removed after death. The patient gradually sank, from the time that he left the Hospital until his death, which occurred on the 17th instant. Eight weeks previously he was tapped, and two quarts of purulent fluid were drawn from the left pleural cavity, and two weeks afterwards a smaller quantity was drawn off at a second operation. On dissection, air issued with considerable force when the left pleural cavity was punctured; and, on laying it open, it was found to contain eight quarts of pus. The pleural surface was covered to a considerable extent with soft, opaque, sodden-looking lymph; being elsewhere reddened, quite free from the deposit, and looking not unlike a mucous surface. The left lung was much compressed, and lay along the mediastinum; being quite free, except for the old adhesions about the apex, where the surface of the organ was torn or cut in removing it from the body. In the upper lobe of this lung numerous old tubercular cavities were found, filled with a whitish, pasty substance; the lower lobe being much less diseased. No opening was found in the surface of the lung by Dr. A.; and very little attempt to find one was made by Dr. J., as the lung was torn as above stated. The right lung was generally healthy; but a considerable amount of tubercular deposit was found in the lower half of the upper lobe, and some in other parts of the organ. The heart lay entirely in

the right side of the chest ; and, as well as the pericardium, was quite healthy.

Nov. 26th.—*Cancer of the Foot in a Child.* Dr. MORLAND stated that on Wednesday, the 21st inst., he had removed the diseased foot from the boy whose case he reported to the Society, October 8th. The amputation was performed about three inches below the knee, by the usual anterior and posterior flap-operation. Drs. Coale, Minot, Brown and Sawyer, and Mr. Weymouth, a medical student, were present, and rendered valuable assistance. Very little blood was lost ; seven ligatures and three sutures were applied, together with simple water-dressing, before the child recovered from the effects of the ether given.

The stump was not disturbed for four days. Almost no pain has thus far been experienced by the patient. An opiate was administered as a precautionary measure, in the evening of the day of the operation ; and stimuli were used, freely, for three days, but have since been only occasionally given.

Dr. Coale very kindly made an excellent cast of the foot, immediately after the operation, and presented it to the Society.

Dr. Ellis examined the foot with great care, and verified the diagnosis previously given. His account of the specimen is appended :—

“ The growth lay mostly between the plantar fascia and the bones of the tarsus and metatarsus, and extended from the os calcis to the phalanges. From the large central mass, lobules projected in all directions. The astragalus was intact, but the os calcis had been partially destroyed, and much of the remaining portion was more or less involved in the disease. Some of the small tarsal bones had escaped, but others were entirely concealed, if not destroyed. The growth was of a dull-white color, generally, with here and there yellow streaks or points, which marked the degeneration of the tissue. It contained much milky fluid, and, though mostly of considerable consistence, was, in parts, quite soft. Examined with the microscope, it was found to be composed of fibrous tissue and nuclei, the latter being generally smaller than those usually found in malignant growths, and granular ; but there were also seen large nuclei, with large nucleoli.”

Dr. Morland added, that on examining the stump, on the fourth day after the operation, it was found to be in an excellent condition ; there was no bagging of matter, and everything indicates a good chance for union, throughout, by the first intention. The pulse, which was 120 for two days after the operation, fell to 100, and below, on the third and fourth days, and continues to be of good character and force. The syrup of the iodide of iron has lately been given to the patient, and a nourishing diet maintained.

January 7th.—The patient is doing well in every respect. Stump healed, except around one remaining ligature, which still holds firmly.

Dec. 31st.—*Diphtheria?* Dr. AINSWORTH reported the following case.

A man, 62 years old, about four weeks before death, was seized with fainting at his place of business, and was taken home. He complained of pain in the throat, difficulty in swallowing, and was hoarse. He had chills, which continued at intervals for twenty-four hours. The next day the sore throat was better. The submaxillary glands were swollen ; there was cough, with expectoration. The third day, he returned to business, telling his family that his throat was almost

well. However, at night, there was considerable cough, with profuse expectoration. The appetite and strength failed gradually for two weeks. He was then taken, while at his business, with pleuritic symptoms with severe rigors, and was obliged to return home. He was unable to lie on either side. These symptoms abated after the use of counter irritants, but he found great difficulty in swallowing; liquids, in every form, regurgitated through the nose, producing cough and strangulation. At first, solid food, in small quantities, could be swallowed, but in a few days these also were rejected. There was very little pain; the breath was not foetid; the expectoration was excessive; the cough not severe. Death took place, apparently from exhaustion, a week after the last attack.

At the *autopsy*, some flakes of recent lymph were found about the lower posterior surface of the right lung; about a third of the upper lobe was in a state of red hepatization. The left lung was healthy. The mucous membrane, about the roots of the tongue, epiglottis and tonsils, was covered with a thick, greyish, pultaceous coat, having an odor like yeast, or a sour-meal poultice. At this place, the membrane could be easily scraped off—seeming to have no tenacity. The mucous coat lying beneath had a red, granular aspect. Following down the œsophagus, the false membrane became thinner, but more firmly organized, giving, when torn up, a flap about one quarter of an inch in length. The mucous membrane was much injected, being thickly streaked with small blood-vessels. The false membrane extended to the stomach. Below the larynx, the trachea was more inflamed than the œsophagus, the false membrane more easily broken, and often mixed with mucous sputa. The inflammation extended to the substance of the lungs, assuming in the bronchi the appearance of severe bronchitis, the membrane being probably detached by coughing.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 10, 1861.

DIPHTHERIA.—We publish the following letter upon a subject of much importance. Fears of the prevalence of some dreaded epidemic are often excited by those who have either mistaken the character of the disease, or who wish to gain credit for remarkable cures.

We have heard of but few cases which resemble diphtheria, and these will be reported in the transactions of the Medical Improvement Society.

Messrs. Editors,—I am asked very frequently by patients about diphtheria, which the public have an idea is very prevalent and very fatal. I have been happy to inform them, that I have not as yet seen a single case, which in the slightest degree resembles the descriptions, given by writers on the other side of the water, of that disease; nor have I heard, from those of our profession, of whom I have inquired, that they have been any more unfortunate than myself. By a member of the profession, who makes certainly as many *post-mortem* examinations as any of us, I have been informed that he has yet to see the **first case**.

The weekly record of deaths certainly does not show that the disease is epidemic in this city, although one death is reported from it last week. As every patient who has a sore throat is alarmed by the horrible anticipation of what some gentlemen describe, would it not be well for the MEDICAL JOURNAL to state the facts in the case? If diphtheria be as abundant as has been represented, some of us might then be put on our guard. If it be not so, perhaps the daily newspapers, which occasionally give as interesting items, accounts of numerous deaths from diphtheria out of Boston, would also say a word to allay the fears of their readers.

C. E. B.

REMOVAL OF DR. MORIARTY.—The removal of one of the most faithful and long-trying of our city officials, the Superintendent of the House of Industry at Deer Island, has naturally created much surprise and regret. As we have no means of knowing the pretext for this uncereemonious act, we can only conjecture that somebody wants a portion of the spoils, and therefore two are to be allowed to bite the cherry instead of one. The fact, that Dr. Moriarty is to be retained as physician of the Institution, does not relieve the City Government from the imputation of having done a gross injustice by placing an old and most efficient officer in a false position before the public. After twelve years' service, alike honorable to himself and to the city, without notice or warning, he suddenly receives information that he had been superseded, leaving an impression on the public mind which a full and frank explanation only can efface. It is due to Dr. Moriarty, says a contemporary, "that such impression should be corrected, for it is well known that the House of Industry under his charge has become a credit to the city, and to-day will bear comparison with any institution in the country."

BERKSHIRE MEDICAL JOURNAL.—We have received the first number of this new monthly, which bids fair to fulfil the expectation of its numerous friends. It contains a long and elaborate article by the senior editor, Dr. Thayer, on Diphtheria, besides valuable miscellaneous matter. It is a well-printed pamphlet of 48 pages, most creditable to all concerned, and we wish our friends all possible success.

COLUMBIA COLLEGE.—Prof. Torrey has presented to the College his immense *herbarium*, the fruit of forty years' assiduous labor, together with his valuable botanical library. The herbarium is especially rich in North American plants, as it contains full sets of nearly all the collections made by the numerous exploring expeditions of the United States Government, from that of Maj. Long, in 1819, to the present time, and the original specimens from which the descriptions in the official reports were made. The herbarium is also authority for the plants described in the *Flora of North America*, by Dr. Torrey and Dr. Gray. The *Floras of Europe, Asia, the Cape of Good Hope, Australia*, and many other parts of the world, are largely represented by collections named by the highest authority. We are glad to be able to add that it is not the intention of Dr. Torrey to relinquish his botanical studies, for the Trustees have provided him with a residence in the College buildings, and ample accommodation for his herbarium and library, so that he will be able to prosecute this important branch of science under more favorable circumstances than he has hitherto

enjoyed. It is his purpose to deliver lectures on botany at such hours as will not interfere with the regular studies of the under-graduates. He has also taken measures greatly to increase the herbarium and library.—*Am. Medical Times*.

OBSTRUCTION OF THE BOWELS FROM ADHESION TO THE UTERUS. By J. H. ALDRIDGE, M.D., of Southampton.—Mrs. S., aged fifty-seven, the mother of five children, had a severe attack of flooding in 1858. In February, 1859, symptoms of obstruction of the bowels came on, and became more and more aggravated until she died, on the tenth of April. Stercoraceous vomiting had existed for some weeks before the fatal issue, which seemed due to exhaustion.

Autopsy, two days after death.—The abdominal cavity alone was examined. The intestines were smeared with a yellowish, watery, offensive liquid, like that which had been vomited; but this may have escaped from the tube after death. The small intestines generally were greatly distended with gas; the ileum was highly inflamed throughout almost its entire length. Near its lower end were numerous dark-colored patches, of various sizes, where the whole thickness of the wall was gangrenous. For several feet above the ileo-cæcal junction, the gut was so softened as to tear when one coil was moved upon another. Here the contents were tenacious and putty like, but on the upper portion the same watery matters were found as had been vomited during life. The colon was nearly empty.

It was therefore evident that the obstruction was low down in the ileum, and on removing the intestines with the pelvic viscera, it was found that the gut alluded to was firmly attached to the posterior surface of the uterus in such a manner as to form a right angle. The womb itself was in a state of cancrroid degeneration, being converted into a mass of epithelial cancer.—*London Lancet*.

COMPENSATION FOR WOUNDS.—The regulations under which pensions and allowances are granted to officers of the army have been revised by a Royal Warrant just issued. The loss of an eye or limb from injury received in action will be compensated for by a gratuity in money of one year's full pay of his then rank or staff appointment. He may be recommended for a pension, also, at a rate varying from £400 for a lieutenant-general, to £50 for a cornet; and if more than one eye or limb be lost, he may be recommended for a pension for each. For minor injuries, "not nearly equal to the loss of a limb," he may receive a gratuity varying from three to twelve months of his then pay. If the injury shall be so diminished as to be "not nearly equal to the loss of a limb," at the end of five years, during which the claimant must be twice examined by a medical board, the pension will then be permanent, otherwise it will cease. No pension or gratuity for these causes will be granted unless the actual loss shall have occurred within five years after the wound or injury was received. This scale of compensation is more liberal than by the previously existing custom, and will be received as a boon by those interested.—*Ibid*.

HOMŒOPATHY AT A DISCOUNT.—We see it stated that, at the opening of the session in one of the homœopathic colleges recently chartered, it was found that only *three!* students were in attendance, and

neither of them was prepared to pay any fees! Whereupon, the Faculty dissolved, the dose being too *infinitesimal*, notwithstanding their master, the illustrious Hahnemann, declares that it is "impossible that the dose can be too small!"—*Am. Medical Gazette*.

HYPOCHLORITE OF ALUMINA.—Orioli recommends hypochlorite of alumina to be used as a bleaching and disinfecting agent, instead of the hypochlorite of lime and soda. It destroys more promptly, he says, organic coloring matter and gaseous matters of a mephitic nature.—*Chemical News*, London.

By the printed catalogue just issued, the number of students attending lectures at the Mass. Medical College is 205. In the St. Louis Medical College the number is over 140.—Prof. Edward Warren, formerly editor of the *North Carolina Medical Journal*, is about to issue a journal from his new home, Baltimore, to be known as the *Baltimore Medical and Surgical Journal*.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JANUARY 5th, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	38	39	77
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	39.3	37.7	77.0
Average corrected to increased population, . . . . .	..	..	85.9
Deaths of persons above 90, . . . . .	..	1	1

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
14	1	4	3	0	0	0	3

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.188	Highest point of Thermometer,	40°
Highest point of Barometer,	30.600	Lowest point of Thermometer,	10°25'
Lowest point of Barometer,	29.506	General direction of Wind,	W. N. W. & N.
Mean Temperature,	29°75'	Whole am't of Rain in the week	1.672
		Melted snow,	0.722

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

		BAROMETER.					THERMOMETER.				SNOW.		Mean Amount of Cloud. 0 to 10.
		7 A.M.	2 P.M.	9 P.M.	Height.	Mean	7 AM	2 PM	9 PM	Mean	Time	Meas-	
Monday,	Dec. 24,	29.60	29.48	29.38			9	19	19				
Tuesday,	" 25,	29.55	29.70	29.78			11	25	19				
Wednesday,	" 26,	29.99	29.95	29.97			21	33	25				
Thursday,	" 27,	29.90	29.47	29.80			20	29	28				
Friday,	" 28,	29.57	29.47	29.52			31	35	19				
Saturday,	" 29,	29.68	29.73	29.70			5	7	2				
Sunday,	" 30,	29.85	29.92	29.94			-12	1	-5				
					Mean 29.56.					16.66.	3 hours.	0.29.	8

In the JOURNAL for Dec. 27th, the figures indicating the height of the thermometer at 2 P.M., on the 13th, should read -2 instead of 2; and on the 14th, at 7 A.M., -5 instead of 6: the former representing below zero, and the latter above.

COMMUNICATIONS RECEIVED.—Cases of Diphtheria.

DEATHS IN BOSTON for the week ending Saturday noon, January 5th, 1861, 77. Males, 33—Females, 39.—Accidents, 3—apoplexy, 2—asphyxia, 1—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 2—inflammation of the brain, 3—bronchitis, 8—burns, 1—consumption, 14—convulsions, 2—croup, 1—cyanosis, 1—dropsy, 1—dropsy of the brain, 5—scarlet fever, 4—typhoid fever, 3—disease of the heart, 2—congestion of the lungs, 2—inflammation of the lungs, 3—marasmus, 1—old age, 1—paralysis, 1—premature birth, 3—scrofula, 1—scurvy, 1—teething, 1—tuberculosis, 1—unknown, 6—inflammation of the uterus, 1.

Under 5 years of age, 33—between 5 and 20 years, 9—between 20 and 40 years, 14—between 40 and 60 years, 16—above 60 years, 5. Born in the United States, 53—Ireland, 21—other places, 3.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXIII. THURSDAY, JANUARY 17, 1861.

No. 25.

LECTURES ON GENERAL THERAPEUTICS.

DELIVERED AT THE MASS. MEDICAL COLLEGE, BY JOHN WARE, M.D., HERSEY
PROFESSOR OF THE THEORY AND PRACTICE OF PHYSIC.

[Communicated for the Boston Medical and Surgical Journal.]

LECTURE I.

GENTLEMEN,—The preceding lectures of this course have been devoted to a consideration of the causes from which diseases proceed; to a description of the symptoms by which they are indicated, and of the elementary affections by which they are constituted; and, finally, to an exposition of the method according to which these materials are to be analyzed so as to make up, what are called in medical language, the diagnosis and prognosis. These are in themselves interesting objects of study, but their real importance consists in the relation they bear to the study of Therapeutics, or the treatment of disease. To this they are the necessary preliminaries.

The original notion among mankind probably was, that each disease is a thing by itself, a distinct individual entity; that one disease differs from another, just as one plant differs from another, or one animal from another;—a peach from a plum; a horse from a dog. In conformity with this notion of disease, was that of the nature of remedies;—that each disease, having its own peculiar character, had also its own peculiar remedy; that this medicine was good for one disease, and this for another; this for gout—this for fever—this for cough. The same notion enters even now into the popular idea of therapeutics, and you may have yourselves entered the profession with some vague conception of the same kind. Hence have arisen systems of nosology. These arranged disease into classes and orders; genera and species; just like the subjects of Natural History. These attempts at classification undoubtedly had their use; but you are aware that, in the present state of medical knowledge, they are discarded as superfluous; just as we take down the scaffolding of a building after its erection has made a certain progress.

I formerly endeavored to explain how it was, that, whilst diseases are many, the elementary affections on which they depend, are few; that diseases vary from one another, not by each being possessed of an exclusive individual character, but, by the fact, that the same elementary affection produces what we call a separate disease, according to the organ or texture in which it is seated, the function which it interrupts, or the state of the constitution in which it occurs. Now something like this is true of the treatment of disease. Diseases are many, but the principles on which we proceed in their treatment are few. The most important parts of treatment relate to disease in general and not to particular diseases. Before, then, proceeding to the details of individual diseases and their treatment, it is proper to explain the principles of General Therapeutics.

It is a matter of common observation that, of some diseases prevailing extensively—such as common catarrh—all, or nearly all persons recover; and this whether they use remedies or not: that of other diseases, as typhoid fever or pneumonia—under the same circumstances—the larger number also recover, but a certain proportion die; whilst of other diseases—as plague and cholera—though a few recover, nearly all die, whether they have been the subjects of medical treatment or not. Now why this different result? Why and how do persons get well who use no remedies; and if a certain proportion get well, why do not all? This is an inquiry that should be preliminary to all questions of treatment.

This inquiry is twofold, and our first purpose is to learn why and how do patients recover who use no remedies.

It is obvious that, in order to this, there must exist in the system some power which contends with disease, seeks to remove it, and in these cases does so successfully. The recognition of such a power in some form or degree, among the careful observers of injury and disease, is probably as old as our art; but the nature, the mode and extent of its operation, have not always been as clearly perceived as they now are. It was early designated as the "*vis medicatrix naturæ*"—the curative force of nature; an expression less employed than formerly, but worthy of being remembered as the original form of words denotive of the idea. It is now referred to under other and various names and designations, as the sanative effort of the system, the restorative tendency of Nature, &c., but all refer to the same principle.

This is not, as so distinct a mode of expression might seem to imply, a separate or independent principle, coming into play when an injury has been inflicted or a disease induced, and, after recovery, suspending its activity and lying dormant till a new occasion calls for its beneficent operation. On the contrary, it is always and everywhere present, and always and everywhere in exercise. It is, in fact, only a modified activity of that power which constantly maintains the body in a state of healthy organization and

action. This power watches over the condition of every part; keeps up its relation with every other part; presides over its nutrition; repairs its waste; heals its injuries; remedies its diseases. The purpose, the mode, the degree of its activity, are determined by the condition of each part, and by the condition of the system as an aggregate of parts. It accommodates itself to the variations of this condition; so that, while in health, it is merely concerned in maintaining each part in its integrity by the healthy processes of nutrition, in disease it is concerned in removing that in which disease consists, by what are called the processes of disease. Its office, in health, is to keep the parts in a normal condition. Its office, in disease, is to bring them back to a normal condition. The processes of disease are only the processes of health modified and adapted to a peculiar exigency. The instruments are the same; the materials are the same. Inflammation is a modified form of nutrition; spasm, of muscular contraction; fever is a modified result of the same law by whose influence increased vascular action is induced by the increased activity of any organ. The processes are simply varied from their ordinary character, because the purpose for which they are established is different from that to which they are ordinarily directed. The quality of life is such, that it is capable of using the same means for different purposes—for formation, for nutrition, for growth, for repair, for restoration—just as a skilful workman employs the same tools and the same materials in the repair of a machine, that he has already employed in its construction.

This principle is universal in organized matter, animal and vegetable, but it is exhibited in different degrees, and with various limitations. It is more restricted in man than in the animals below him. In many of them, it not only keeps good the organization of parts and repairs partial injuries; it may even reconstruct organs that have been removed or destroyed—as the claw of a lobster or the eye of a newt—but in man it is only capable, in health, of maintaining the organs in a normal condition, and, in disease or injury, of bringing them back to that condition.

But the efforts of this principle, as we have already seen, are not always successful, and this brings us to the second branch of our inquiry:—Why are they not always successful? Why are they so often unavailing? Why are they so often defeated? We shall have occasion to consider this more at large hereafter. It will be sufficient to say now, that the causes are many and various; such as, among others, the nature and severity of the disease or injury; the state of the patient's constitution; the character and functions of the part affected; the favorable or unfavorable conditions under which the patient is placed; his injudicious management on the part of those about him. In disease, there is always a contest between two antagonistic forces—the force of disease, tending to destruction; and the force of recovery, tending to prevent destruc-

tion. The result will depend upon the relative strength of the contending parties. But whatever be the force of the disease, we are always able to detect indications of the effort to remove it. Even in those maladies which are almost necessarily mortal, as cancer, consumption, tetanus, or hydrophobia, we trace the constant operation of the same restorative principle in the character of many of the processes that are going on, and in partial periods of relief and suspension of progress.

But it may now be asked, is there no other dependence but upon this principle of spontaneous recovery? Has art no direct resources? Are there no absolute remedies by which disease can be controlled and expelled? It always has been and still is believed that there are. The simple and primitive idea of treatment, to which I have already referred, is founded on this belief. It has been difficult to determine how far this belief is well founded, because very generally in the practice of medicine care has not been taken to distinguish between the direct influence of remedies and the results of the sanative principle; between what is due to Art and what to Nature. Hence, as some remedy or other has usually been given, the recovery is apt to be ascribed to its influence. It is not till the treatment of disease is carried on with a clear and distinct appreciation of these two separate principles, and with constant reference to the part which each severally takes in bringing about the result, that we can properly determine their respective value, and thus learn how far we are in possession of remedies of a direct and positive character.

Still, the belief in such remedies exists among physicians, and is the result of a long course of observation and experience; but there is a wide difference of opinion with regard to their number, their amount of efficacy and their mode of operation. This direct remedial agency, so far as it exists, appears to be founded upon the relation which is maintained between the human system and other substances in nature. Probably every such substance bears a peculiar relation to this system, in consequence of which it produces peculiar effects upon it. In the case of powerful agents this is clear enough, as in those having a strong smell or a strong taste, or acting as medicines and poisons. But there are considerations which tend to show that even substances that appear inert, in the ordinary mode of application to ordinary constitutions, are capable of producing decided effects when differently applied, or applied to peculiar constitutions. Thus, prussic acid, as combined in the common peach, produces no sensible effects, but when exhibited in a concentrated form may speedily destroy life; whilst, on the other hand, the most virulent poisons, as strychnine, in a small dose and largely diluted, may be taken without injury. Still further, some substances from which most persons perceive no peculiar effect, act upon certain individuals almost as poisons, such as mutton, milk, cheese, honey, &c. An eruption upon the skin is produced in cer-

tain persons by the contact of rose leaves, and a species of asthma, or difficult breathing, by emanations from them, from hay, from ipecacuanha, and probably various other vegetable substances unknown to us, although their presence is not obvious to the senses. Emanations from the common domestic cat give rise, in some constitutions, to faintness, nausea and vomiting, and this even where the animal is not known to be present, and its odor has not been perceived. Such susceptibility, it is true, is an individual peculiarity, called in medical language an *idiosyncrasy*. Probably, however, it is only the exaggeration of a relation common to all mankind, but which in others requires the application in greater quantity or of greater intensity. So that very likely there is no substance that in some quantity or in some degree of intensity is not capable of producing a cognizable influence upon the human system.*

At any rate, whether this be so or not, it is upon such a relation that those articles which have been selected as medicines depend for the effects they produce. They may be divided, according to the manner in which they operate upon disease, into two classes: the *first* contains those that are directly remedial; the *second* contains those that are indirectly remedial.

I. The articles of the first class are supposed to act directly for the removal of disease—they are primarily curative. Thus Peruvian bark, quinine and arsenic, have a direct influence on certain diseases characterized by distinct paroxysms and intermissions—such as intermittent fever, hemicrania, intermittent catarrh and neuralgia, and some others having this same element of distinct intermission in common with them. Of the same direct nature is the influence of mercury and iodine upon syphilis—of colchicum upon gout and rheumatism—of iron in anæmia—of lemon juice in scurvy—of ergot upon the parturient uterus.

I mention these as the most distinct cases of an absolute power on the part of drugs to remove disease, and probably few physicians would doubt that they have this power. But the possession of the same sort of power has been claimed, from time to time, for a great many other articles, about which there has been and is a variety of opinion; and it is to be remarked, that as disease has been observed more closely, and its course judged of in the light of more advanced science, the number of these articles has steadily diminished. Even of those medicines with respect to whose influence there is no reasonable doubt, it is not intended to imply that this influence is always exerted—that they are infallible remedies. Far from it. On the contrary, they very often fail in the cases to which they are appropriate. But so far as they have any effect, it is directly to remove that condition in which the disease consists, and their power depends upon a peculiar relation

* Some remarkable facts illustrating these statements may be found in the history of Casper Hauser.

between the remedy and that condition. In other words, they are specific remedies. Still, even where we depend upon specific remedies, it does by no means follow that the whole work of recovery is performed by them. It is always necessary that a part at least of this work, in order to its completeness, be performed by nature. Suppose that quinine has extinguished the paroxysms of an intermittent. There is usually left behind an impaired state of the functions which it does not remedy, but which nature gradually restores. Mercury destroys the specific character of a syphilitic ulcer, but the ulcer is only healed by a spontaneous process. The removal of disease in this way bears a sort of analogy to a surgical operation, in which the knife removes the diseased part, and the wound left behind is healed by the powers of nature.

This, so far as we have the means of following it, is the most simple, perfect and satisfactory method of treating disease. Its purpose is simple and distinct. It implies the knowledge of a distinct object to be effected, and of a distinct agent with which to effect it. Unhappily, our knowledge of disease itself is so limited, and our knowledge of the exact power of remedies is also so limited, that it is capable of but a narrow application. Yet such is its simplicity and directness, that it has a great charm to many minds, even among physicians. So conformable is it, also, to popular comprehension, and to popular notions of disease, and even to those of many medical men, that there is a constant tendency to extend its application and to believe in its capacity for extension. If we examine the medical journals of the day which give an abstract of the various new propositions for treatment, it is found that no inconsiderable proportion of them are based upon this relation of remedies to disease.

Upon the same principle is founded—if I understand it aright—that part of the theory of homœopathic practice which relates to the efficacy of its medicines. It teaches that for every morbid condition there exists a specific remedy—a distinct antidote. No method of treatment could be more perfect in theory or more satisfactory in practice, if it were actually founded in truth. But there is a two-fold difficulty in the way of accepting it as a sufficient system. First, there is a want of evidence that such antidotes have been discovered, or that they even exist; and second, even admitting their existence, there is a great anterior improbability of their being capable of any positive effect upon the human system in the inconceivable state of dilution in which they are exhibited, whilst there is no sufficient body of proof to balance this improbability.

These remarks relate to the powers possessed by remedies for the direct removal of disease; but there is another view of remedies, somewhat of the same kind, which is of great importance. There are few, as has been stated, having a direct power over disease, but there are a great many having a direct power over

symptoms. It is often desirable to palliate a symptom, when we have no power over the essential malady. If opium cannot cure the disease, it will at least remove the pain which the disease produces. If antimony cannot cure pneumonia, it will at least diminish the febrile activity accompanying it. Considered in this point of view, medicines become most important as subsidiary agents, when the character of a disease obliges us to leave it to run its natural course.

II. The articles of the second class, when they are efficacious at all, are efficacious in a different way. They have a distinct operation—often more distinct than that of the preceding class—but an operation not primarily remedial, though it may be so secondarily. Of this kind are emetics, cathartics, narcotics, strychnia, digitalis, blisters, and many others. They do not directly remove disease, but they produce definite changes in the condition, action, and perhaps structure of organs, the indirect result of which may be its removal. The relation of remedies of the first class is directly with the disease. The relation of those of the second class is directly with some organ or function which may or may not be involved, and only indirectly, with the disease. Quinine subdues intermittent fever by its direct operation. Emetics and cathartics, if relied upon for the same purpose, can only bring about the same result by the vomiting and purging they excite, and this may indirectly arrest the course of the disease. We know that strychnia will produce contractions in the muscles of a palsied limb, but we do not know that it will, as a consequence, restore its natural power of motion. We know that digitalis will diminish the frequency of the pulse, but not that it will cure the disease which has produced it. We know that cantharides will blister the skin, but not that the blister will relieve the inflammation for which it has been applied. The effect in the first class is curative; in the second class, physiological. The principle upon which the agents of these classes act, so far as they are beneficial at all, is thus entirely different in the two. Their value as remedies is to be judged of from a different point of view, and by a different kind of evidence.

A great number—perhaps the greater number—perhaps all medicinal agents—appear to bear a special relation to particular organs, and to produce their effects through those organs. Antimony, however, introduced into the stomach, the veins, the rectum, or applied to the skin, acts upon the stomach, cantharides upon the bladder, opium upon the brain and nerves, strychnine upon the muscles, cathartics upon the bowels, mercury upon the salivary glands, phosphorus upon the bones of the face. This list might be extended, but it is sufficient to suggest the fact as of some importance in studying the effects of remedies.

Diseases may be treated, then, according to two distinct methods:—

1. By leaving them mainly to the influence of the sanative principle, or the *vis medicatrix naturæ*.

2. By the employment of absolute remedies that we believe to be possessed of the power of removing that condition in which disease consists, either directly or indirectly.

Whatever be the relative value of these two methods, of which different opinions may be entertained, there can, I think, be no doubt that under one or the other are comprised all the agencies that are ever concerned in the treatment of disease. Consequently, if all treatment resolves itself into these two methods, all treatment should be studied in relation to them, and it is only by keeping them continually in view, and determining, as far as practicable, upon which depends the efficacy of any course we adopt, that we can arrive at any clear and distinct views of the results of our practice. Now there is really no such incompatibility between these two methods as renders it inconsistent to rely upon both in the same case or the same diseases. On the contrary, the best practice is probably that which combines them. Thus, where the main reliance is upon nature, there are few cases in which, at some period in their course, some absolute remedy may not be employed either to directly aid in supporting the system through the disease, or else to remove some obstacle or relieve some symptom which interferes with its successful progress. There are few plans of treatment, either in systems or in the practice of individuals, where these two methods are not combined. There has always been a certain undefined reliance on the powers of nature, whilst, at the same time, a great variety of distinct remedies have been employed with an equally undefined conception of the manner in which they are to prove useful, whether by their own efficacy, or by indirectly promoting the natural recovery. In order to clear and philosophical views of practice, it is necessary that the physician should first judge what amount of benefit he is to expect from the efforts of nature, and then, if he uses remedies, whether he merely uses them in aid of these efforts, or whether he expects from them a distinct effect independent of these efforts. I acknowledge that these are points very difficult to determine, but the more nearly we approach to their determination, and the more constantly we attempt it, the more will the results of our experience become definite and available; without the attempt, we can never tell, on recovery from disease, to what we are to attribute recovery—whether to nature or art; and if wholly or partly to art, what has been the particular agency of our different measures in the result. Without it, the largest experience may present only a dreary waste of vague inferences, and of loosely-observed and unavailable facts.

It is only by keeping an eye on this principle of judgment that we can attain to an understanding of the exact limits of our art—to a knowledge of what can and what cannot be done. In any

practical department, it is an indispensable condition of success to determine the limit between the practicable and the impracticable. What should we expect of the mechanic who attempted to construct a machine upon the principle of perpetual motion? Must it not vitiate all his calculations with regard to its working? He does not understand the limits of his art. He aims at the impracticable. The physician may do the same thing. He may aim at the impracticable for want of a proper appreciation of the limit of his power over disease. Suppose he were to attempt to arrest measles, or smallpox, or scarlatina at its onset, and prevent them from going through their regular course? Would not this be an attempt as preposterous as that to work a machine by perpetual motion? Now our present knowledge does not enable us to determine, in all cases, what the limit is, but it is no extravagance to say that any deliberate consideration of the matter at all is apt to be overlooked. To what heroic treatment have patients been made to submit; to what torments have they been subjected; what quantities of drugs have they been made to swallow—not only to effect purposes to which they were incompetent, but purposes which were in their very nature unattainable. We are constantly disappointed in the result of our plans of treatment, and in the effect of our medicines. Is it not often because we have aimed at controlling a state of disease which is only part of a necessary course of processes, or at the removal of a disease which is, in its nature, irremovable? In consequence of overlooking these considerations, it constantly happens that favorable results are attributed to remedies, with which remedies have had nothing to do; and, on the other hand, it constantly happens that unfavorable results are attributed to the disease, when they may in fact be owing to the remedies.

[To be continued.]

THE VALUE AND THE FALLACY OF STATISTICS IN THE OBSERVATION OF DISEASE.

A BOYLSTON PRIZE ESSAY, BY DAVID W. CHEEVER, M.D.

[Continued from page 483.]

THE numerical method affords us a numerical estimate of probability in a given number of cases; but this is not of much help to the practitioner at the bed-side, who has to determine the probabilities of the individual case before him, which may or *may not* be more or less similar to the cases estimated numerically. Perception, comparison and deduction are necessary for each individual, as well as in formulæ and tables. We may often learn from statistics, indeed, that of many effects or consequences, as the duration, course or result of a disease, one will occur more frequently under given circumstances than another. All this, however, admits of

no direct application to an individual case. So many special circumstances and influences come into play in each case, and complicate the question and calculation to such an extent, that the conclusion cannot be a safe one. Each individual case has its own special result, which could not be calculated exactly from statistics. If we know, for instance, that of those attacked by cholera, fifty per cent. die, and an equal number recover, we cannot, on that account, assume for an individual cholera patient, that the probability of his dying is precisely as great as that of his recovery. Such probability must be greater or less than the average, according to his age, habits, personal vigor, or the severity of the attack. Nor, again, if we knew that the mortality of smallpox was just one in four, could we predict for any given case of this disease, that his chance was just one in four. It would be either above, or below that number.

There is still another important source of error existing in each individual case; allied to, but in some senses distinct from, idiosyncrasy. This is the "constitution" of the patient, as it is called; by which is meant the sum of all the influences of locality, station, hygiene, occupation, habit, diet, or accident, which have acted upon the individual from the time of his birth, until the period of the disease we are treating. And not only this, but influences called hereditary, in some diseases of great gravity, which extend back through generations before his birth. It is plain that we can never expect to attain a knowledge of all these influences by the most detailed examination or the largest tabulations; yet such knowledge is indispensable to render our facts, or units of calculation, not identical, but *strictly* comparable. It is, after all, with much justice, that following the popular idea, we hear patients say, "I value my family physician because he understands my constitution": and so, to the extent permitted by his finite faculties, he does.

The positiveness of principles (and principles are only generalizations), says an empirical writer, applies only to the principles themselves, and not to the individual phenomena and relationships, by the aggregate of which they are composed. This applies to both pathology and therapeutics. The positiveness of the law cannot apply to single instances. So diagnosis, prognosis and treatment must ever depend mainly on an accurate knowledge of the individual cases themselves.

To avoid as many as possible of these errors, to compare justly the essential points of one of those great nosological groups of symptoms which constitute a single disease, how many observations, and how many separate comparisons must be necessary. Each symptom, essential or accidental; each sensation, positive or negative, present or wanting; every organ, as the skin, the tongue, the heart and lungs, as well as the more general functions indicated by the pulse, respiration and excretions, and, finally, *all* the

functions, whether morbidly affected or not, must have tables, sub-tables, columns and balances by themselves. So, too, must the previous history of the patient be detailed with a fidelity which would require a mind and memory far beyond the average of humanity, especially when sick; and the inquiry into so many minute symptoms demands a patience, an accuracy, and a power of differential diagnosis, such as very few of the best trained physicians possess. It would be impossible to find cases strictly comparable in all these respects. The presence of any one symptom cannot be offset by the absence of another; nor even in strictly identical symptoms can those either wanting, or in excess, be mutually balanced, unless by numbers extending over vast series of cases, and a very considerable length of time. It is plain that the busy practitioner can never find time to work out such numerical results for himself, but must depend upon the labor of others.

Not only does this independence apply to different classes of maladies, and to individual cases, but we shall find, by pushing our inquiries more into generalities, that no department of medical science follows from any other, but that each is distinct by itself. A knowledge of one branch of medicine cannot be deduced from any other, but each also must be studied by itself. Thus, our knowledge of anatomy is distinctly the result of pure observation. Physiology is not deducible from anatomy, any farther than we can trace a general adaptation of means to ends; as that the skull is made to contain, or the heart to circulate something, but what, its uses or functions, we know not.

Neither is pathology deducible from physiology, though the common opinion is just the reverse. We cannot infer the action of a function in disease, from its normal action in health; as, for instance, the excretion of urea by the kidneys in health, but its retention, and the excretion of albumen, a constituent of the blood, in Bright's disease. Physiology is useful to pathology only as a standard of comparison; and so it is very necessary, in judging of the comparability of many units and data of statistics. Etiology, too, does not follow from pathology, but is the result of observation alone. And finally, therapeutics are not founded so much on pathology, as on simple experience. All this must greatly increase the labor of the numerical method.

And since pathology is not founded on physiology, it follows that the action of medicines in disease cannot be safely inferred from their action in health. Therapeutics establish the relations between articles of the *materia medica* and certain morbid processes, not healthy ones. To a limited degree we have exceptions, as where an emetic substance would empty the stomach of a well, as quickly as of a sick person. But opium would often have far different effects in health or disease; pain alone being a perfect antidote to its poisonous action: and other instances might be cited. This does not interfere with the accuracy and value of the

researches of Lehmann, and Bidder and Schmidt, on the physiological action of water, coffee, alcohol, or mercury; but should be a caution to us not to infer too readily, that the same results will follow their employment in disease, as in health. We wish only to show that the numerical method, when carried into pathology and therapeutics, meets only with increasing uncertainty and labor, and can in no wise be aided by a knowledge of the more rudimentary branches of medical science, which may have been earlier acquired. Everything tends to prove that not only each person and each branch of medicine as a science or an art, has an individuality which cannot be readily compared to others: but that diseases, especially, admit of infinite variety in the degree, the number and the order of their symptoms.

Yet for the correct study of disease, an arrangement of symptoms into groups is important, on the one hand, and a searching into the intimate nature and causes of such groups, on the other. Otherwise we are in danger of erecting symptoms of many diseases into diseases themselves, while in fact they are only symptoms. And in popular speech we often commit this error, calling the most prominent symptom, as diarrhœa or hæmorrhage, the disease. After we have successfully accomplished these nosological generalizations, we shall still find nature too complex for single observation, or numerical analysis. For our symptoms must be studied one by one, in the order of their development, and the precise period of appearance of each must be learned. One is apt to be confused by the multitude of symptoms which a patient presents. It is here that we discover the true value of hypothesis; not to analyze or theorize, but to enable us to isolate certain symptoms, previous to observation. Here, too, when it is practicable, experiment would come to our aid, because by it we can place certain symptoms in the best position for examination, thus judging of individual influences; and, in the physical sciences, we can repeat the experiments as often as we need. Fallacious grouping and the complexity of nature offer, therefore, serious obstacles to the correct analyses of the numerical method; while experiment is seldom admissible.

So many forces are at work modifying each other in life that correct induction is difficult, and the establishment of causal connection, at times, impossible. Vital phenomena move in curves, and not in straight lines: the non-appreciation of any one of the motive forces destroys the balance of antagonism, and would be fatal to the most careful calculations. Even the student of the physical sciences would find it difficult to ascertain the laws of motion, solely from bodies kept in a state of rest by opposing forces.

Again, the natural sequence of morbid phenomena is another source of error in establishing by numbers the natural history of disease. Not knowing the whole chain of causal connection, we are unable to decide whether one event takes place in consequence

of a stage of the disease arriving to determine it, or from some other cause, which we have under our control.

Thus, too, the very different influences under which patients may be placed, were they only so seemingly trivial as the temperature or the state of the atmosphere, have a modifying effect on each case, which we should seek in vain to reckon or account for. Time and place even may render the statistics of different epochs, or localities, wholly valueless for comparison with others. The season of the year, the tendency of the epidemic then prevalent, the very various effects of good or bad locality, in a hygienic point of view, may all concur to derange the true balance of calculation.

We are in danger also of forgetting that it is not alone the number, but the intensity also of the symptoms, which are to be the units of our statistics. But the latter cannot be accurately measured, nor expressed in numbers.

We have already adverted to the necessity of very large numbers in determining vital phenomena: the true use of the calculus of probabilities, and the approximative accuracy of which it is capable, we prefer speaking of under the head of the value of statistics, towards the close of this article.

We come now, then, to the crowning fallacy, among the *objective* ones, of the numerical method, namely, the influence of the Vital Principle.

Medicine can never be an exact science, since it deals with the vital principle—a principle in itself changeable, self-supporting, and self-regulating. Vital force is the great perturbative element which renders the results attained by the faithful student of Nature approximate rather than precise. The calm test of experiment and the pure logic of analysis in organic chemistry are rendered uncertain, through an imperfect knowledge of its laws. Chemical processes, which, duly carried out under similar circumstances, give always the same result in the laboratory, are often wholly and inexplicably changed in the living organism. It is very evident, then, how it must disturb the results of pathological statistics; nor does there seem to be much probability of its being finally fully understood.

Liebig, on the one hand, and a modern and very voluminous medical writer of this country, on the other, represent the two extreme views held regarding it. The former would reduce it to a physical, if partially unknown, phenomenon; the latter would exalt it into a position of complete supremacy over all merely physical laws. Both, probably, equally err. The second named gentleman has been betrayed by his enthusiasm into a denial of all chemical theories as applied to the human frame; of all discoveries of the microscope, and asserts, even, that the lacteal absorbents have open mouths. Liebig endeavors to bring all vital manifestations under a few universal laws of chemical affinity, and flushed by his

discovery of the interchange of oxygen and carbon in the capillaries, and its connection with animal heat, hastens to construct a theory of calorific and plastic foods, and to draw close lines of comparison between vitality and some forms of electricity; conclusions, to say the least, premature. To his views Carpenter inclines; but Paget and Dalton are disposed to view the vital principle as a higher law. Carpenter describes vital force as a power correlative with the physical forces; as, for instance, that it may be the mode of action of heat or electricity in the body; and that physical and vital forces mutually give rise to each other. Paget says that vital force is distinguished from all others by its powers of generating typical organic forms, or *modality*. Though correlated with the physical forces, it has no identity with them.

The distinction is clear between the force, which by chemical action prepares the material for constructing an organ, and the force which forms the ideal plan of the organ, and constructs it of this material. Although the phenomena of living beings cannot be accurately analyzed, yet the two antagonistic forces are the organic typical, or modal force, creative and preservative of the organic form; and the chemical forces of the material molecules, that keep the substances of the forms in endless change. To take for illustration the phenomena of cell-growth. Mechanical force governs the position, shape and relations of the cell; chemical force governs its composition; but vital force assimilates it to the organ of which it is to form part, and gives it the power to partake actively of the vital processes.

It would seem, if further argument were needed, that the simple fact of the abrupt cessation of the chemist's power of synthesis, at the verge of organic life, were enough to prove that vitality was distinct from physical laws.

Although it is true that science has gradually brought some phenomena of digestion, heat and nutrition under the dominion of chemical laws, yet the total failure to subject the nervous element, and its connection with mind, to any sufficient physical or material hypothesis, would also incline us to believe that there is indeed a higher law of life, inscrutable, omnipotent and omnipresent in the human organism, and that that power is vital force.

Such being the sum of our possible acquaintance with *vital force*, it is obvious that we have present in all our formulæ of vital phenomena, in health or disease, an UNKNOWN ELEMENT, which no algebra or calculation can resolve, and which must at once vitiate the results of the numerical method.

But were all these fallacies of the object explained, or done away with, we should still have the liability to serious errors in the subject, or the observer himself. And first and most important of these is the influence of his own mind (the *ego*, as metaphysicians call it) upon the results of his observations.

The power of correct observation is innate: hence all observers

are not equally good. The facts, then, of various observations will not be alike, nor alike reliable: but there can be no just comparison of dissimilar or doubtful facts. We never separate the object from the perception; it is impossible to do so. What we call objects are, then, our ideas of them: and our ideas will vary according to our preconceived notions, and our judgment. These observations are not comparable. Probably it is through our judgment that we err oftenest. We are too credulous of notions which agree with our own, and too skeptical of the contrary. Everything that is novel irresistibly attracts some persons. In medical science we are ever ready, like children, to follow any authority.

When we express our own explanation of what we have observed, compared and grouped with many other things, we describe it as it appears to us. For this reason our whole previous knowledge and experience, our notions and views at the moment, acquire a much greater influence over the mass of our observations, at the bed-side, than we are conscious of. We are continually liable, in confounding our own notions with our observations, to fall into the same error as metaphysicians, who have been unable to solve their own problems, because the mind observing was the mind observed; the mental faculties were both the instrument and the object of investigation. These philosophers were obliged to employ a fallible insight to detect fallacies in their own minds.

It is plain that our tables of cases are filled with the vagaries of as many minds as there are observers. We cannot guard against their mistakes. Everything that suits us, assumes such a magnitude in our eyes, that it causes us to overlook many other important details. A deficient experience and youth formerly inclined us more to theorize from our observations. Maturity is a safe age for the observer and collector of empirical facts. But, at any age, we are too apt to make rash generalizations. The very talents of an individual with any peculiar tendency to explore only certain subjects, become injurious to the medical profession by establishing premature and special, or limited, theories.

[To be continued.]

PASSAGES FROM A SURGICAL NOTE-BOOK.—No. II.

BY C. POWERS, M.D., MORAVIA, N. Y.

[Communicated for the Boston Medical and Surgical Journal.]

Senile Gangrene in a Patient aged 93—Amputation—Recovery.

ON the 9th of July, 1853, I was called upon to attend Thomas Atwood, who, the messenger said, was suffering from terribly acute pain in one of his feet.

Mr. Atwood was a farmer in comfortable circumstances, and

good habits, and his case was remarkable for the very unusual retention of his physical and mental powers, at an advanced age. At 93 he appeared scarcely 70, and he performed as much hard work as any of his laborers, asking none of his hired men to do more, or harder labor than himself. He often said that he was not conscious of any failure of his strength or capacity of endurance for the last thirty years, and supposed that Death must have forgotten him.

I found him suffering from agonizing pain in his right foot, which he said had come on, while he was riding in a waggon, as suddenly as though caused by a shot from a rifle. He was in good health, and had never, previously to this, had any similar attack. The foot appeared natural in color, but was somewhat colder than its fellow. There was also a marked sensation of numbness, and firm pressure on the part could hardly be felt by him. The foot and limb were placed in hot water in which was thrown plenty of mustard, and friction was kept up assiduously for two hours or more. To relieve the intense pain, a large dose of morphia was given, which had to be repeated again and again, before comparative relief was obtained.

On the next day, there was a still greater diminution of the temperature of the foot, notwithstanding all available means had been used to keep it up, and the whole foot and ankle had assumed a faint purple tinge. He could not now feel the point of a pin at any part below the ankle when thrust into, or even through the skin, but the pain was as excruciating as ever, when not quelled by enormous doses of morphia.

On the third day, the whole foot had a decidedly livid hue, and the faint purplish tinge was creeping up the limb. The severe pain had abated (and in a day or two more ceased entirely); tongue only slightly furred, appetite moderate, pulse nearly natural; not much constitutional disturbance, as yet. The foot and leg, nearly to the knee, were wrapped in a yeast and charcoal poultice, and beef and beef-tea were given freely, and brandy also, two ounces per diem, with diminished doses of morphia.

It is hardly necessary to give the minutiae of symptoms and treatment as the case progressed. Each day the dusky line advanced slowly upwards for about two weeks, when it paused at about three inches below the knee, though for the space of another fortnight there was no appearance of any line of demarcation. The foot and ankle had become coal-black, gangrenous, and blistered, the cuticle in many places detached, and the odor arising from the putrid limb exceedingly offensive. About a month from the first attack, nearly all of the calf of the leg, having partly sloughed, was removed, leaving the bone bare. All the dead portion was moist and putrid, not dry, or shrivelled. In the meanwhile brandy, quinine, porter, and beef-tea, were given in

large doses and quantities, to keep up the system, and enable it to make an effort to throw off the dead mass. The red line of demarcation was watched for with intense anxiety, but for more than a month ineffectually.

Before its appearance, should amputation have been performed? Authorities differ, and probably always will, on this point, though, unquestionably, the majority of good surgeons say no. Aside from the danger of the shock, in the low condition of the system, which the very nature of the malady implies, while the disease was progressing there was almost a certainty that gangrene would have attacked the stump. Bear in mind, also, that the age of the patient closely verged upon a century.

Once, about the third week, he came very near sinking, from what I supposed to be the effect of the absorption of morbid matter, from the gangrenous limb. He suddenly lost his appetite, his pulse ran up to 130, and with this, came delirium, dark and dry tongue, and tympanitic distension of the abdomen. At this stage, his symptoms singularly resembled those of advanced typhoid fever. The brandy, quinine, and essence of beef were increased, and in a few days these untoward phenomena all disappeared.

During the fifth week, the line of separation between the dead and living tissues became visible in places, and in a few days more completely encircled the limb. On the forty-second day, I removed the mortified portion, closely following the very irregular line of demarcation, separating it, most of the way, with the handle of the scalpel. The flap was turned back, and the bones divided about three inches below the knee, where they appeared healthy. There was scarcely any hæmorrhage; no vessels requiring ligatures. The ragged flaps were then brought into apposition in such a way as to make as comely a stump as possible, fastened by adhesive straps, and supported so as to take off the pressure as much as practicable from the anterior corners of the remaining portions of the tibia and fibula. Ulceration of the thin integument, however, occurred at this point, and the ends of the bones appeared protruding through the skin; and whilst waiting a few days for Mr. A. to get a little more strength to bear a re-amputation of the bones, nature took the case into her own hands; and as she had already, nearly unaided, thrown off the dead soft parts, she now proceeded in her own way to remove the sequestrum. One day, while examining the projecting ends, I found they were loose and detached, and removed them with the dressing forceps. At the line of junction of the dead and living bone, they had been *girdled* by the action of the absorbents, looking very much as if they had been gnawed off by mice. There is not a particle of doubt, that, if I had waited a little longer, there would have been a complete spontaneous amputation of the whole limb, and the patient would probably have made as good recovery as he did.

The healing process then went on favorably, and in a few months

he was well—with the exception of the mutilation—having a good stump. He died the next year, of congestion of the lungs.

Moravia, N. Y., January, 1861.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 17, 1861.

MASSACHUSETTS MEDICAL SOCIETY.—We have received a copy of the revised edition of the By-Laws of the Massachusetts Medical Society, which has just been issued in accordance with a vote of the Councilors, and containing all the amendments which were made at the Annual Meeting of the Society in May, 1860. It bears the marks of much care in revision, for which the Society is largely indebted to the judgment and discrimination of the Recording Secretary.

The attention of the Fellows is particularly called to the change in the *mode* of admission. Formerly any graduate of the Harvard or Berkshire Medical Colleges could be admitted by the Recording Secretary, or the Secretary of any District Society, upon presentation of his medical degree, and signing the By-Laws. This power has been annulled by the alteration alluded to, and at present *no person* can be admitted a Fellow except upon examination by a Board of Censors. The only reservation in favor of the Harvard and Berkshire Medical Institutions, is, that “graduates from those Colleges shall, if *otherwise qualified*, be admitted without further examination of their medical attainments.” This change makes it important that Secretaries of Boards of Censors should especially note the provisions contained in the 15th and 22d Sections, in order that the Recording Secretary may be able to furnish the Society with a complete list of new members at its Annual Meeting.

It gives us great pleasure to inform our readers that the contribution in the JOURNAL to-day, from Dr. JOHN WARE, on General Therapeutics, is only the first of a series of articles upon this very important subject. For their introduction, no more appropriate time could have been chosen than the present, when the minds of many appear to be unsettled in regard to the value of therapeutic agents. We are sure that all will be gratified to hear from one, to whom high position, experience and wisdom give the best right to speak.

The views expressed in the following extract, from the *Columbus (Ohio) Review*, for December, 1860, are so just, and so accordant with our own, that we take the liberty of copying them. The writer, in noticing the recent paper by Dr. Ware on Hæmoptysis, says:—

“In medical as in all literature there are scores of authors who have written well but too much; the gold they give us is too much beaten, and, however well adapted for certain ornamental purposes, does not serve, like compact coin, to buy meat and raiment. Time and change make sad rents into such tissues. Others have added treasures to our stores of medical thoughts—have even investigated, elaborated and classified the various phenomena of disease and health, but have done it in a most execrable manner, and to get at anything worth having we have to encounter much that is unpleasant. Others bring facts to the

general store as cartmen bring paving boulders in a cart and dump them on to the highway in a heap, from which you may pick and choose (if you can get at them) any that suit your purpose, where they lay. Dr. Ware belongs to neither of these classes. What he has done he has done well. He has added to our stores of knowledge upon medical subjects, and presented his materials in so quiet and proper a guise, that they have passed at once and irrevocably into their proper place in the ranks. To use a simple expression, every hit he has made has *told*. But he has done so little to enrich our literature, that every little work he has given us has only tended to deepen our regret that so cautious an observer, so patient a generalizer, so careful a theorist, and so judicious a practitioner, has not left us a more enlarged work upon medical science.

"But however much we may regret this, we recollect with pleasure that his short monographs on Croup, on Delirium Tremens, and his occasional contributions to medical literature, have been incorporated into the large mass of standard authority in medicine. It is therefore a great source of satisfaction to greet another work (though only a pamphlet) from his pen. The modest pamphlet before us contains more real matter than many a bulky volume we could mention."

MORTALITY STATISTICS OF PROVIDENCE, R. I.—In Providence the increase of deaths in 1860 over those of 1859 was 102, or 11.3 per cent. Of the whole increase, there were 34 during the first, and 68 during the second six months of the year. The *increase* of deaths in 1860 from several important diseases was as follows: cholera infantum, 35; consumption, 30; diphtheria, 8; diseases of the heart, 8; unknown causes, 11. The *decrease* from several diseases was as follows: croup, 6; diarrhœa, 8; fevers, 17; malformations, 8; old age, 7; scarlatina, 23.—*Providence Daily Journal*.

DIPHTHERITIS.—Dr. J. W. Smith, of Wellington, Ohio, says, in the *Cincinnati Lancet and Observer*, "This disease is now prevailing to an alarming extent in many neighborhoods of Northern Ohio, assuming, too often, a character so formidable as to challenge the best thoughts of the best men in our profession. . . . In a country practice of not immoderate extent, I have been called to treat probably one hundred and fifty cases within the last four months. All these have been well marked, though the majority readily recovered."

AN INDIAN MEDICAL JOURNAL has been established in Oordoo, E. I., entitled the *Akbare Tubabut*. It is intended as a medium of communication between native doctors in government employ and native Hakims, for the improvement of medical and surgical knowledge, and the greater alleviation of the many diseases to which the millions of inhabitants of this country are subject.—*Am. Jour. of Dental Science*.

CHLOROFORM IN ITCH.—The *Druggists' Circular* says: "Prof Bock has found the external application of chloroform useful in some cases of itch. This substance appears to kill the insect, and, moreover, by producing anæsthesia, it relieves the irritability of the skin. M. Bock has never observed any inconvenience to arise from the use of chloroform, and the sensation of burning, which it produces for a short time, is quite trifling in comparison with the intolerable itching caused by the disease."

At the Annual Meeting of the New York Medical and Surgical Society, held on the 5th inst., Dr. Alonzo Clark was elected President; Dr. T. M. Halstead, Vice President; Dr. H. D. Sands, Secretary; and Dr. Thomas F. Cock, Treasurer.—*Am. Medical Times*.

WANT OF HONESTY IN MAKING PHARMACEUTICAL PREPARATIONS.—M. L. Leroy, of New York, has sent us a piece of thick porous blotting paper, laid off in squares with a pencil; each square contained a stain made by a drop of some pharmaceutical liquid—each column consisted of different specimens of the same preparation, and exhibits, at a glance, the variation of composition by the difference in the stains. He considers this a good way to test for many of those preparations that have an ingredient that is liable to vary from its high price—as, for instance, saffron.—*Am. Journal of Pharmacy.*

DR. R. W. GIBBS has been appointed, by the Governor of South Carolina, Surgeon-General of that State; and Drs. F. P. Porcher and J. J. Chisolm, Surgeons to the U. S. Marine Hospital, now held by South Carolina.—The *New Orleans Med. News and Hospital Gazette* states, that “notwithstanding the terrible financial crisis and unprecedented political excitement which exists,” the class of the School of Medicine of that city is larger than usual.—Students in Paris, to the number of 1196, have registered at the Faculty of Medicine.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JANUARY 12th, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	35	38	73
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	37.6	37.0	74.6
Average corrected to increased population, . . . . .	..	..	83.3
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
15	5	5	6	0	0	0	0

METEOROLOGY.

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

		BAROMETER.				THERMOMETER.				SNOW.		Mean Amount of Cloud. 0 to 10.
		7 A.M.	2 P.M.	9 P.M.		7 AM	2 PM	9 PM		Mea- sure.		
Monday, Dec. 31,		29.92	29.81	29.29	Lowest	-10	18	20	Height,	Time	0.22. 2 hours, 00 m.	5
Tuesday, Jan. 1,		29.66	29.63	29.58	Highest	13	33	27				
Wednesday, “ 2,		29.55	29.66	29.61	Point,	19	28	21				
Thursday, “ 3,		29.63	29.58	29.60	29.92.	10	16	12				
Friday, “ 4,		29.63	29.61	29.61	Mean	-12	-9	5				
Saturday, “ 5,		29.62	29.62	29.56	29.51.3	8	26	20				
Sunday, “ 6,		29.34	29.17	29.11		35	39	40				

NOTICE.—We are requested to state that the revised edition of the By-Laws of the Massachusetts Medical Society, just published, was mailed from this office, to all the active members of the Society, on the 14th inst.

COMMUNICATIONS RECEIVED.—Case of Nasal Polypus.

BOOKS RECEIVED.—Contributions to the Anatomy of the Spinal Cord. By Dr. J. F. Trask, of San Francisco.—Account of a New Cranial Perforator. By T. Gaillard Thomas, M.D., New York.—Twenty-Second Annual Report of the Board of Trustees and Officers of the Central Ohio Lunatic Asylum.

DIED,—At Mount Pleasant, Iowa, Nov. 8th, Dr. N. Bruce, aged 72 years.

DEATHS IN BOSTON for the week ending Saturday noon, January 12th, 1861, 73. Males, 35—Females, 38.—Accidents, 2—apoplexy, 1—disease of the bowels, 2—inflammation of the bowels, 1—bronchitis, 4—congestion of the brain, 1—inflammation of the brain, 2—disease of the brain, 2—cancer, 2—consumption, 15—convulsions, 1—croup, 5—debility, 1—dropsy of the brain, 4—epilepsy, 1—erysipelas, 3—scarlet fever, 5—disease of the heart, 2—intemperance, 1—influenza, 1—inflammation of the lungs, 6—marasmus, 1—old age, 1—paralysis, 1—pleurisy, 1—premature birth, 3—phlebitis, 1—teething, 1—unknown, 2.

Under 5 years of age, 28—between 5 and 20 years, 2—between 20 and 40 years, 21—between 40 and 60 years, 9—above 60 years, 13. Born in the United States, 49—Ireland, 19—other places, 5.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXIII. THURSDAY, JANUARY 24, 1861.

No. 26.

DIPHTHERIA.

BY L. H. ANGELL, M.D., AURORA, ILL.

[Communicated for the Boston Medical and Surgical Journal.]

SPORADIC cases of this disease have appeared in this vicinity, for a year past. It began to assume more the character of an epidemic, as the cool weather of the autumn approached. A majority of the cases occurred in children and young persons. No cases have been met with in infants under one year, it being most frequent between the ages of five and fifteen. However, several cases occurred among adults. No local causes seemed to influence its prevalence. Cases were quite as numerous and as severe in the farm-houses, upon the prairie, as within the town, and perhaps more so in proportion to the population. In no instance has it appeared to be contagious. In some families, but one case occurred; while in others, all were evidently attacked with it. Cases of "sore throat," not characterized by "diphtherite" or constitutional symptoms, were common, and yielded to little or no medication. There prevailed, at the same time, scarlatina, of more than ordinary severity, and a number of cases were fatal, principally through cerebral complications.

The following notes of a few cases may serve to convey an idea of its principal features, as it has come under my observation, and the treatment which I have been led to make use of.

CASE I.—Nov. 4. E., aged six. Twenty-four hours ill. Some pain in head and right ear. Fauces and palate red and slightly tumefied, particularly the tonsils and uvula; the right tonsil has a patch of membrane as large as a thumb nail upon its internal, inferior surface. Right lymphatic submaxillary gland swollen and tender to the touch. Breath slightly foetid; tongue covered with a cream-like fur; pulse accelerated; countenance slightly flushed; skin hot and dry. No pneumonic symptoms.

Applied a saturated solution of nitrate of silver to the mem-

brane of the tonsil, with a camel's-hair brush, and prescribed ten grains sulphate of quinine and the same quantity of Dover's powder, to be divided into ten powders, one of which was to be given every three hours. A solution of chlorate of potassa was also ordered, to be used as a drink and gargle, and volatile liniment to be rubbed upon the neck over the tumefied glands.

Nov. 5.—This morning she was engaged in her sports, free from fever. Throat less red; swelling subsided. The treatment was continued. The next day her father informed me that she was "about well," and took food with relish. I cautioned him to watch her closely, and to continue the tonics.

On the afternoon of the 7th I was summoned, and found an aggravation of the symptoms. Pulse rapid; expression of countenance anxious; swallows with difficulty. Both tonsils, the greater portion of the velum palati, including the uvula, covered with a firm, yellowish-white membrane; the parts adjoining swollen and intensely congested. Breath foetid. No medicine has been taken for two days, except chlorate of potash. The membranous portions were immediately cauterized. Quinine and Dover's powder prescribed as above, and instead of the chlorate of potash, the chlorine mixture was directed to be taken in half tablespoonful doses, every hour or two. I was led to prescribe this preparation on account of recently witnessing very marked and happy effects from its use, in a severe case of scarlatina, after the usual preparations of the chlorides and chlorates had failed to afford any relief.—(Vide *Watson's Practice, Scarlatina*, p. 1002.)

The next day there was an amelioration of all the symptoms; deglutition became easy, and she recovered rapidly with no change of treatment, except one or two cathartics. After the use of the chlorine mixture, it was not necessary to apply caustic. No others of the family, containing six children, were attacked.

CASE II.—Farmer, aged 38. Saw him on the evening of Nov. 8th. Has not been well since morning, but labored during the day. Has now fever, hot skin, white tongue; pulse 110; breath foetid. Right tonsil covered with membrane; palate tumefied and congested; right submaxillary gland swollen; pain in back part of head and right ear; great thirst and restlessness. Prescribed sulphate of quinine, twenty grains; Dover's powder, fifteen grains; sulphate of morphia, one grain; to be divided into ten powders, one of which was to be given every three hours. A tablespoonful of the chlorine mixture was ordered to be taken every two hours, and to be used also as a gargle. Fomentations to neck externally.

The next day found him profusely perspiring, and the symptoms all ameliorated. Some membrane upon both tonsils, but redness and tumefaction subsiding. The same treatment was essentially continued, with an occasional cathartic, and at the end of one week he had nearly regained his health.

Three other cases occurred in this house, not differing from this in their features, and yielding to similar treatment.

CASE III.—A German child, one year old, had been ill one week. The parents thought "it had a cold and sore mouth." Since yesterday, it has swallowed with difficulty. Respiration croupy; voice very hoarse. It is evidently difficult for the patient to make a loud noise. Tongue, fauces and palate, as far as can be seen, covered by membrane. Glands of neck swollen, and pulse very rapid. After answering the inquiries of the parents with an unfavorable prognosis, an emetic of ipecac was given, to be followed by quinine and Dover's powder, half a grain each, every two or three hours, and chlorine mixture in one or more teaspoonful doses, every alternate hour. Rubefacients and fomentations to the neck were directed. Twelve hours after, he appeared much relieved, as far as the respiration was concerned, and there was some moisture of the surface. During the following night he was permitted to rest, and in the morning there appeared to be a remission of the more urgent symptoms. Had it not been for the hoarseness remaining, I should have discharged him at once; but knowing the danger from "false membrane," the parents were cautioned not to consider the danger altogether past. He coughs frequently, and appears to expectorate a great deal, which is, of course, swallowed immediately. Directed castor oil to be given, and the above treatment to be continued.

In the evening I found him quite as well. One dejection was shown me, containing what appeared to be a quantity of membrane, perfectly white and opaque. Suffice it to say, that under such treatment, with some mild expectorants, he recovered in about ten days—the tonics, anodynes and chlorine mixture being the principal agents. It was with much hesitation that the administration of the tonics was commenced in this case, as such treatment is diametrically opposed to that I have usually pursued in membranous croup. But being satisfied that this was diphtheria, and that this disease yielded to tonics and chlorine in some form, and the already debilitated condition of the patient not seeming to admit of a depletive or mercurial course, there remained none other but the somewhat empirical one made use of, which happily resulted favorably.

Diphtheria, then, in this locality, has shown itself to be a febrile disease, ushered in by symptoms common to intermittents and continued fevers, accompanied by a peculiar inflammation of the mucous membrane of the fauces and neighboring parts, which very soon results in the formation of a false membrane. If the disease is not arrested, ulceration takes place, the neighboring absorbent glands swell, an irritative fever is set up, deglutition becomes impossible, respiration difficult, and the patient rapidly sinks.

Tonics and the preparations of chlorine are indicated to arrest the febrile paroxysm, and consequently the formation of false membrane. I have principally relied upon quinine and the chlorine mixture, and have not been disappointed in a single instance.

Anodynes, and also stimulants, have been necessary in some cases, and, in all, a general supporting treatment, continued for several days after the disease is apparently arrested.

THE VALUE AND THE FALLACY OF STATISTICS IN THE OBSERVATION OF DISEASE.

A BOYLSTON PRIZE ESSAY, BY DAVID W. CHEEVER, M.D.

[Continued from page 503.]

SPECIALISTS are particularly prone to error. The advantages to medical knowledge of so many minute observers, each investigating a single subject, is more than counterbalanced by their unconscious tendency to distort facts to suit their theories. And if it be said that there can be no difference of opinion about figures, we can easily point to a hundred instances in medical history, where the unitary symptoms which are the basis of statistics have been misconceived, preconceived, or mis-stated, by honest, but prejudiced observers. Even if we are not specialists, we, very few of us, escape many years in practice without contracting some bias, which would cloud the clearness and accuracy of our perceptions. No man is wholly free from it. And provided that we hold our wayward tendencies sufficiently under control to prevent our being led into any positive fallacies in observation, we are still in danger of not finding, or of overlooking, the most essential points in a case, and of dwelling upon those which are less characteristic and important. Thus two observers, taken from the number of general practitioners, may render a very different account of the same case. It may be objected that such errors as these are inseparable from any human investigation. But it must be recollected that we are trying by statistics to free our art from fallacy; and that the science of numbers stands or falls with the identity or comparability of the facts observed, or with the reverse.

Provided, however, that we escape all these sources of error, another awaits us in the use of language and definition. It is not true that the numerical method is a substitution of figures for words. Numbers alone can never supply the requisites of articulate speech. And, unfortunately, the language we employ is a very defective one. The terminology of medicine is very far from definite, because originally formed by ignorant men: yet we cannot avoid using it. The literal meaning of technical terms is no longer their correct one. False expressions, too, influence our ideas, in the end. Our idea of a disease is got from a set of symptoms described and grouped by words. Yet the latter, as well as our definitions, change with time.

It is as important, too, in establishing theories from facts, that our classifications should be identical or similar, as that our definitions should be accurate. Diseases must be classified on neces-

sary and general conditions, not on variable and local ones. This is difficult, since the species of disease, its seat, lesion, or even each particular instance of it, all differ from the others. We are apt to be misled by false analogies. And even when we seek for what we deem the soundest basis, we shall find anatomical changes, as the foundation of our classification, of but little value to the practical physician, since attention is not directed to those points of pathology which are most important to him.

It will be unnecessary to prove that diagnosis must be, we may say, *the* most important element in the numerical method. Difference or error, here, is necessarily fatal. Yet, this is one of the most difficult parts of medicine. The power of minute and differential diagnosis varies much, not only with the knowledge, but also with the mental acumen of the observer. The observers of facts which are to form bases of calculation, need peculiar care and caution. "A corps of trained observers is needed—trained in the same school—so that they may observe alike; then their observations, whether right or wrong, will be alike right and wrong." That is, they will be truly comparable, even if fallacious.

We shall find that observers have varied much at different medical eras. "Every one is, and remains a child of his time." It is impossible for the medical observer, any more than any other person, to escape the cotemporary influences of his age. We are insensibly affected by the views of those around us, in spite of ourselves. The theories prevailing; the erratic views of some innovating genius, who may have escaped somewhat from the above influences; the re-actions constantly taking place in opinion in consequence of previous errors in doctrine—all must warp and influence the medical observer. The pupils of Broussais, Laennec, Bouillaud or Hahnemann, will, and must *see* different things in their patients, as well as pursue different treatment.

Besides this, if we take the same observer, we shall find that some circumstances always make a stronger impression on him than others. The rarer events will even lead him to overlook the more frequent; because the former will attract his notice by their infrequency. Yet the constant repetition of the latter renders them much the more important for practical purposes. Thus a positive always impresses us more than a negative fact; the occurrence of a certain symptom in five cases, more than its absence in twenty; a cure, more than a failure. Some unhopèd-for success attending a remedy firmly associates it, in our minds, with a disease as a specific, while it is really only a coincidence. "Extraordinary and interesting cases are always remembered." Yet great caution should be used in admitting them to much consideration in our experience. It has been adduced as a striking proof of the fallacy of simple experience, and the value of the numerical method (or counted experience), that Louis himself found that every *a priori* conclusion, which he had formed in his own mind from his

experience—or the recollection of his own facts—when submitted to arithmetical analysis, proved to be erroneous. This proves, indeed, the fallacy of memory, but it does not prove the truth of figures based on experience; for the errors may exist in the observation, as well as the recollection of facts, as we have already shown.

Not only a capacious intellect, but very great shrewdness is necessary for the correct observation of disease. Those facts which are to form the units of averages, should be culled with peculiar care. Leading questions must be strictly avoided; and negative, collected with the same industry as positive facts. For organs, even *structurally* modified, sometimes give rise to no symptoms; and this should impress us with the necessity of noticing all the functions in our examinations. It must be recollected, however, that while all these things are essential to a correct employment of the numerical method, few observers are equal to carrying them out. In particular, will positive impress more than negative facts. Very few would have the shrewdness ascribed to an ancient Grecian, who, on seeing the votive tablets suspended in the temple of Poseidon by those saved from shipwreck, asked also for the names of those who had been drowned in spite of their vows.

What is true of one place may not be true of another, with regard to disease; locality admits of but loose connection with morbid processes. It is difficult to compare different epidemics justly; it is much more difficult to estimate the comparative prevalence of chronic disease, if one searches for its etiology in the influence of place—In seeking for a comparative view of phthisis, for instance, as it extends, more or less actively, in many neighboring towns, or counties.

We cannot justly conclude that the seaboard, or inland townships are the more exempt from, or that high or low, dry or moist localities favor the ravages of tubercle, on so simple data as the mortuary statistics of the several places, in this respect. The number of deaths from consumption in a certain town, or even parts of a town, for a few years, does not prove much, positively, with regard to the influence of the locality on the disease. And this, because there are other more important causes, predisposing or exciting, of tubercle, which are ignored in the inquiry. Such are, hereditary taint; occupation; fluctuations in population, and too short an average of years. Many natives of the place may have derived their tubercles from parents, who were born and reared elsewhere, some years before; many, too, may owe their weakness to marriages of consanguinity, or to personal vices of constitution. So, too, the trade, and social status of the individual case must have a wide influence; for we should naturally expect more phthisis among a village of shoemakers, for example, than in a fishing town. Such hereditary, or other innate influences as there are, may vary much, on one side or the other, from year to

year, from the emigration, or the moving of a certain per centage of floating population. And to compensate for these sources of error, a much longer series of years must be devoted to tabular returns—longer in proportion to the number and complexity of the causes involved.

Statistical results require to be controlled by new results before they can obtain the force of laws. The advocate of the numerical method is sometimes as one-sided as the specialist. He is ready to forget that figures are not brains, tables not perceptions, and that recorded observations do not give the power of observing. The statistician is but too often as fallacious and extravagant in his conclusions as those who rely exclusively on physical signs; both equally overlook the rational part of medicine.

Striking examples are not wanting, and we do not have to go further to seek them, than the pages of the cotemporary periodicals of medicine.

One enthusiast recently proposed, in all gravity, to deliver all presentations by turning, as soon as the os was dilated. Another (T. J. Austin on *Paralysie Generale*, in the *Medical Times and Gazette*, Nov. 12, 1859, p. 486), says of the condition of the pupil in the general paralysis of the insane, "The iris is always affected; generally unequally in the two eyes. When the *right* pupil is most affected, the general tone of the delusion is *melancholic*; but when the *left*, usually *elated*:" whence he derives, by a brief chain of reasoning, the startling deduction that "the right *thalamus opticus* is the ganglion of natural painful emotion, and the left, of healthy, pleasurable emotion." And this result is based on the observation and autopsies of *twenty-six cases*!! Surely the fallacy of a too small number of observations requires no more striking illustration.

Nor are the results in large averages always more satisfactory. For example: an article, in the *Archives Generales de Medecine*, Juin, 1859, p. 691, et seq., based on some thousand observations, and the investigations of Dr. Adams, in the *Mass. Med. Communications*, Vol. IX., No. IV., 1858, of some seven hundred cases, exactly *contradict* each other in certain conclusions drawn from the statistics of vaccination.

"Of all dangers, a fallacious certainty is the greatest. A simple process of verification *à posteriori*, like the numerical method, never can be elevated to the dignity of a system, since it will be eternally true in medicine, that the problem is individual." We know that this method must be still more incompetent for the treatment of disease. And it requires, finally, such an amount of prolonged labor, that neither the life-time nor toil of any one person is adequate to it, but its statistics can only be drawn from the records of great Hospitals. Louis himself said of it, that nothing was more simple, and nothing more tedious.

Notwithstanding so many and so valid objections, the numeri-

cal method has not only been dignified with the name of a science, but actually exists, and can exhibit certain practical results not devoid of importance.

It would be very unfair to pass them by: and we will therefore speak, in conclusion, of the *Value* of Statistics in the Observation of Disease.

In a limited degree they have a value: far greater in some departments than in others. This value descends in accuracy by a progressive ratio, and in the following order: Mortality and Births; Hygiene; Etiology; Pathology; Therapeutics. The last is infinitely less certain than the first. And in accordance with our previous conclusions, we find the statistics reliable in proportion to the simplicity of the *data* from which they are calculated.

Even if genius could grasp the laws and causes of disease, observation would still be necessary to test their truth. We shall find in medical history that it is the detailers of facts alone, who escape oblivion. We see no examples in the history of science of any individual genius throwing itself far in advance of its contemporaries; but all attainment is the result of slow, and combined exertion. Faithful description, too, is always valuable, though the hypothesis which it seeks to establish may be absurd. And even if we settle nothing by our observations, the gradual accumulation of our facts may enable posterity to do so. A great mass of medical knowledge is, even now, only waiting for analysis. The authority of experience is but the attempt of an individual to generalize. And since no memory could recall enough observations to generalize just conclusions, we have need of the numerical method, which counts and compares individual facts. Nothing is here arbitrary or capricious, but simply mechanical. The correctness of the results is settled by a mathematical test, over which we have no control. Some laws require many more facts to establish them than others. But it is only when the objects contemplated are few, that individual varieties seem infinite: large masses of facts merge them in more general features. And in favor of very enlarged observations we have the testimony of Herschel that "It is only by condensing, simplifying and arranging the acquired knowledge of the past, that posterity can be enabled to avail themselves fully of the advanced stand-point from which they start."

To collect observations is a trade which must be learned, and not divined: nor can we trust others to observe for us. And to observe well, we must not observe hastily; but to re-examine an object as if presented the first time, is the only way, we are told, to rectify errors. But the professional man, though he carries on a certain inductive process in his mind, which results in establishing the conclusions of his daily experience, has no leisure for the requirements of statistics. Practitioners are all isolated; but general facts are required. And, in some respects,

the present is a favorable time to get them. For the modern school of observation, with its more accurate methods of investigation by physical signs, the microscope and test-tube, has a tendency to discriminate more nicely between diseases. Differential diagnosis, one of the most essential elements in statistics, is therefore more exact, as well as of easier application. And where the diagnosis is very uniform, the limits of variability in our numbers is small. In such diseases as smallpox and tetanus, for example, but a small number of facts need be observed to settle definitely our diagnosis, or, in fact, our treatment.

Although the numerical method had been verbally recognized for ages, it was never practically tested and exemplified until the skeptical mind of Louis had its attention drawn to it. From his youth until he had attained the age of thirty-three years, M. Louis studied and practised in Russia. Coming to Paris, he became a disciple of Broussais, whose theories were then in full tide of popularity. But soon doubting the accuracy of his results, he resolved to devote himself entirely to *observation*, for the purpose of trying to settle some of the many uncertainties in medical science. To obtain an extended field for his observations, he entered the Hospital of La Charité, as the clinical clerk of Chomel. He gave up all private business; and for *seven years* devoted himself to rigorous and impartial observation. Ridiculed at first; as soon as a numerical analysis of his facts could be made, he was admired and imitated by the French school.

Whatever we may think of his method, we can but admire his perseverance. There can be no doubt that he was the most careful, impartial and honest observer, whom our profession has seen. He was no specialist, and had no preconceived ideas to verify, or *à priori* views to establish. No one who has, will observe seven years, before reaching a conclusion. He studied all the functions during life, and examined all the organs after death. He analyzed his facts, and submitted them to a rigorous comparison with all analogous diseases. Special and characteristic symptoms, he held, could only be found by comparison.

Even Sydenham said, that the natural phenomena of disease, however minute, must all be noted. And to establish the natural history of disease the method of Louis holds out the most flattering promises. His two great series of observations on Phthisis, and on Typhoid Fever, have been long since well introduced by our native translators to the profession here. These two works, together with his researches on Yellow Fever, have not only established the fame of their author, and of the numerical method, but have aroused a hearty, coöperative observation throughout the medical world, which, although it may have unduly exalted statistics, has not been without good effects. For some very important empirical facts were early developed from the method of Louis,

[To be continued.]

OBSERVATIONS UPON A MORBID CONDITION OF THE NECK OF THE BLADDER NOT DESCRIBED BY SURGICAL AUTHORITIES.

By D. D. SLADE, M.D., BOSTON.

[Continued from p. 435.]

Causes.—THE causes of contraction of the neck of the bladder are various, and may be either local or general. Among the first, Gonorrhœa stands preëminent, especially when of long standing, and when it has attacked the deep-seated portions of the canal. Under this head, we may also include every source of irritation or inflammation in the neighborhood of the neck of the bladder, organic strictures, calculi, diseases of the prostate, fungoid vegetations, obstinate constipation, hæmorrhoids, &c.

Among the general causes, we may include the nervous temperament, nervous affections, general debility, scrofulous habit of body, rheumatism especially, organic affections of the nervous centres, dyspepsia, &c.

Neither is it difficult to understand how these various causes may be productive of contraction. Gonorrhœa, for example, or any of the other sources of irritation, either in the urethra itself or in any of the neighboring organs, may be readily capable of exciting perfect reflex action, particularly in systems of high nervous mobility. Now, contraction, in a great many cases, undoubtedly commences with a greater or less degree of spasm, which condition, occurring more and more frequently in those who are predisposed, finally terminates in a permanent contraction of the muscular fibres entering into the structure of the neck of the bladder.

The sources of this spasm are various. A concentrated state or excessive acidity of the urine, as well as other changes in its character, by irritating the lining membrane of the urethra, may cause it. Rheumatic persons are especially prone to urethral spasm, owing to excess of lithic acid or its products in the urine; and when such a state of the renal secretion persists for any length of time, it leads to a highly irritable condition of the canal, which proves an additional cause of spasm. Irritability or morbid sensibility of the urethra from other causes, abrasion of the lining membrane, the various forms of chronic urethritis, particularly in persons of strumous habit, are all sources of spasmodic action, leading gradually, in many cases, to permanent contraction.

And yet, although in many cases we may be able to trace the cause or causes of contraction, we must confess that the etiology of this affection, as well as of spasm, is still very defective, and not unfrequently the most careful examination does not suffice to determine any special influence. We undoubtedly find a predisposition, in certain cases, and we have noticed that contraction was not unfrequently most marked in individuals of a scrofulous tendency, who had suffered as children, and even up to the age of puberty, from nocturnal incontinence of urine.

In this connection, we may remark, that we know no cause which may conduce more powerfully to bring about a condition of morbid irritability at the neck of the bladder, and thus lay the foundation for contraction, than the very common and pernicious habit of resisting the first calls to empty the bladder.

Contraction is not confined to any particular period of life, although the young and middle aged are, without doubt, most subject to it. Nor is it peculiar to the male sex. There are certain symptoms connected with vesical irritability in women, especially in young girls, which we are confident are dependent on an analogous if not upon the same cause. Although our data, in respect to the prevalence of contraction of the neck of the bladder among females, are very imperfect, there is nothing, either in the anatomy or physiology of the urinary apparatus, which would prevent the occurrence of such an affection. We certainly meet with cases of incontinence of urine among girls as well as among boys, which we contend are dependent upon contraction.

Contraction of the neck of the bladder may not only be produced by the local sources of irritation which we have mentioned, as well as become complicated with these, but in itself it may be a source of irritation. For example, there are a vast number of cases of chronic urethritis, manifesting itself by the presence of a drop, or even less, of muco-purulent matter, at the meatus urinaris, as also by some other symptoms, not very definitely marked, which are dependent upon the very condition of which we speak. The catheter, if it has been passed at all, has failed to detect this peculiar state of the muscular fibres, or if it has detected any resistance to its free introduction, this has been at once set down as stricture.

In support of the truth of these assertions, we rely not only upon the peculiar symptoms presented, but also upon the beneficial effects of the treatment directed against contraction.

Anatomical Appearances.—Our knowledge of the anatomical appearances of contraction of the neck of the bladder, must necessarily be very limited, inasmuch as patients do not die of this affection in its early stages. It is the complications of this affection which prove fatal, and it is these complications which engross the attention of the pathologist to the exclusion of the original disease.

We possess but few observations on the alterations occurring in muscles in consequence of contraction, or even of spasms. Bowman is the first who has investigated the subject with any degree of accuracy. He found some muscles in tetanus perfectly healthy, while others presented a peculiar pale-gray appearance, in many parts like the flesh of fish, owing, undoubtedly, to the blood having been squeezed out of the vessels. In other parts they had almost lost their fine filamentous structure, and presented a soft mass, which tore easily. Under the microscope, the primitive fas-

ciuli here and there exhibited the characteristic signs of a high degree of contraction, and a closer approximation of the transverse striæ than usual.

Usually, no traces of congestion can be observed upon the mucous membrane lining the contracted parts, although such congestion must have existed during life. The membrane is of a duller color than natural, and somewhat thickened, and there is more or less adhesion to the tissues beneath. These remarks of course apply to the cases of pure muscular contraction of the neck of the bladder, without any marked complications.

In the only case of pure, uncomplicated contraction, where we had an opportunity of examining the microscopic appearances, the mucous membrane presented the appearances just described, while the muscular fibres, even on the closest examination, did not offer an aspect materially different from the most healthy.

In fine, from the very nature of the affection in question, we must necessarily fail to detect, even on the closest examination, in the great majority of cases, any structural change in the canal whatever.

Prognosis.—Contraction of the neck of the bladder is in itself a malady of no very great importance, but the complications to which it may give rise render it often of very serious moment. It is often rebellious to treatment when it is due to any peculiar diathesis, or to some local organic affection. In forming our prognosis, therefore, we must take into consideration the history, duration of the disease, and especially the cause, and the age of the patient. If the disease is still recent, and has not as yet given rise to any serious lesion of the urinary apparatus, and if the patient is otherwise healthy, contraction, by a proper course of treatment, is not difficult to overcome. As a general rule, however, the practitioner cannot be too guarded in his prognosis; neither should he promise a too speedy cure.

[To be continued.]

Medical Reports from the Mass. General Hospital.

PREPARED BY ROBERT WARE, M.D.

BRIGHT'S DISEASE; SYMPTOMS AND SIGNS OF MITRAL DISEASE, WITHOUT CARDIAC LESION. (Dr. MINOT.) Patrick H., 7 years, Irish, resident of Boston, entered July 3d, 1860. Patient cannot give a very clear account of his sickness, but states that, on June 30, after some exposure, he was attacked with pain in both feet, of which he was soon relieved; but yesterday he was attacked with pain in the right arm and in the chest, with dyspnœa and palpitation. He does not know whether or not he has previously had rheumatism. Soon after his entrance he had an attack of great distress from dyspnœa and excessive action of the heart; pulse 150, respirations 80; action of heart very forcible; coun-

tenance anxious ; some cough ; complains of no pain, except in the chest. He was ordered, at 3, P.M., four drops of the tincture of veratrum viride ; in half an hour after taking it he was free from pain ; pulse 125, respirations 60. At 7, P.M., as there was some return of dyspnœa, he took the drops again, with similar relief. July 4th—Continue veratrum, four drops every three hours. Pulse 128, respirations 60 ; beef-tea. July 5th—Free from pain ; slept well ; skin dry ; pulse 120, respirations 68 ; occasional cough ; milk was substituted for the beef-tea, and cream of tartar water given as a drink. July 6th—In consequence of an attack of prostration, and drowsiness, with weakness of the pulse yesterday P.M., the veratrum was omitted at 6 o'clock ; it was resumed at 9, P.M., and has been continued since. Patient reports himself better ; pulse 120, respirations 60 ; frequent short cough ; dulness on percussion at the lower parts of both backs, and especially of the right ; respiratory murmur very loud over all parts of the chest ; first sound of the heart slightly prolonged and roughened at the apex ; both sounds distinct and clear at the base. He takes bread and milk with relish. July 11th—Patient has been gaining, on the whole ; the pulse and respirations have, with occasional intervals of agitation, fallen pretty steadily, being respectively 92 and 42 at 8 last evening ; the bowels have moved regularly ; his appetite has improved, and he was allowed potato on the 10th ; two leeches were applied just below the left nipple, on the 8th, and he has taken a cough mixture of paregoric and syrup of squills. Now his aspect is tranquil and much improved ; skin very cool ; pulse 108, respirations 36 ; tongue nearly clean ; an undulatory motion is plainly visible in the 4th and 5th intercostal spaces, one inch to the left of the sternum ; dulness on percussion extends from the 3d to the 6th rib, and from the left edge of the sternum to the nipple ; some roughness and prolongation of the first sound of the heart between the 5th and 6th ribs, at about half an inch inside the nipple, and most marked between the 6th and 7th ribs, on a line with the nipple ; between the 4th and 5th ribs it seems to be preceded by a slight supplementary sound, which closely follows the second sound ; bellows murmur faintly audible behind, at the junction of the dorsal and lumbar regions ; second sound of heart perfectly distinct and loud over the cartilage of the 3d left rib. July 13th—At 1, A.M., pulse 88, respirations 40. At visit (10, A.M.), pulse 96, respirations 30 ; omit veratrum. July 14th—At 12, last night, pulse 78, respirations 36 ; at visit, pulse 108, respirations 48 ; appetite good ; a few large papules, with suppurating points, on the nose, chin and neck ; fremitus felt on application of the finger an inch and a half below the left nipple, and at the same spot there is a loud bellows murmur, preceded by a shorter murmur. He was allowed mutton on the 16th, and appeared to be gaining in appetite and strength ; the veratrum (three drops every three hours) was resumed on the 20th, as the pulse had been 120 for three days ; the bellows murmur had then almost disappeared, though it was faintly audible in the back. Urine was acid ; specific gravity 1015, and with no trace of albumen. July 26th—Was up and dressed yesterday morning, and soon after had an attack of delirium, lasting about an hour. Now complains of severe pain in the præcordial region ; apply there six leeches. The leeches bled freely, and on the following morning he was sitting up in bed, free from pain ; pulse 116. August 13th—Was well enough to sit up and be dressed ; appetite fair ; is

disinclined to motion ; pulse 128 ; complexion pale. Omit veratrum. R. Ferri et manganes. sacch. carbonat., gr. v. three times a day.

For some days after this date he appeared prostrated, rather stupid, was restless at night, and the pulse ranged from 120 to 130. On the 17th, it was thought that there was some want of power over the muscles of the arms, and perhaps a diminution in the sensibility of the left arm. He was ordered beef-steak ; on the 23d, the syrup of the iodide of iron was substituted for the powder, and he took two ounces of ale every day ; he was able to be dressed, and to go out of doors by September 1st.

Sept. 12th—Patient has been steadily improving, and is able to do light work about the ward ; pulse 120 ; tongue clean ; appetite good ; the respiratory murmur is clear throughout the left side ; at the right side, both back and front, are heard abundant, coarse, sonorous and sibilant rales, with a crumpling sound, or "*bruit de cuir neuf*" ; percussion is a little flat behind throughout ; considerable prominence of the cardiac region, the left nipple being more than half an inch higher than the other ; fremitus perceptible to the hand two inches above the nipple ; cardiac dulness extends from three inches below the clavicle to a point three inches below the left nipple, and from the right edge of the sternum to a point one inch to the left of the nipple.

He left the Hospital Oct. 2d, and re-entered on the 12th. He had been at home, where he was exposed to wet, and was allowed unwholesome food. He had œdema of the feet and legs, a prominent abdomen, with extended dulness over the right hypochondrium, where there was a feeling of resistance ; there was some dulness at the base of the right back, and the murmur was faint at that side ; no rales ; the mitral souffle was heard as at last report ; urine contained a slight trace of albumen ; mind clear. R. Vin. ferri, gtt. xxv. ; syr. sarsæ. c., ʒij. three times a day. By the 20th, the œdema had much increased, and was visible in the face ; sonorous and creaking rales were heard over the whole chest in front, and were audible even at some distance from the chest ; he slept pretty well, had not much cough ; slight fluctuation of the abdomen was noted. He was ordered to be wrapped in a wet blanket three times a day. He took beef-steak and potato with relish. Oct. 23d—The entire surface of the body is covered with small livid spots, some beneath the cuticle, others on it ; rales have almost wholly disappeared ; in twelve hours, passed nine ounces of very turbid urine, free from albumen. He sank gradually, with increase of the œdema, the fluid distending the penis and scrotum, which became of a dark-red color, and died Nov. 3d.

Autopsy, by Dr. ELLIS.—Old adhesions of the pleura of the right side ; heart universally hypertrophied, weighing $9\frac{1}{2}$ ounces ; water poured into the aorta escaped slowly through the aortic orifice ; the valves were slightly contracted and thickened ; no apparent lesion of the mitral valve ; a pint of serum in the peritoneal cavity, and the lungs, liver, spleen and kidneys were firmer than usual.

DISEASE OF THE MITRAL VALVE AND BRIGHT'S DISEASE. (Dr. MINOT.)—Ellen G., 14 years, a native and resident of Boston, entered July 11th, 1860. Patient's mother died of phthisis ; she has usually had good health till about one year since, when she suffered from a severe cough, from which, however, she had nearly recovered, when she was attacked, during the past winter, by a disease characterized by pain

in all parts of the body, and called rheumatism at the Dispensary ; she was not confined to the bed, or even to the house. Since that time, her cough has become more troublesome, and she has emaciated. The catamenia appeared, for the first and only time, about a year ago ; has never had hæmoptysis, though her sputa are at times streaked with blood ; cough is not very severe during the day, but comes on when she lies down at night ; has no pain ; sweats much at night ; some, but not marked, flatness on percussion, throughout the left back ; no abnormal respiratory sounds ; a loud systolic murmur at the apex of the heart, audible at the base of the left chest behind ; the appetite is good ; the tongue clean, and the bowels regular. She was put upon "house diet ;" three grains of the tartrate of iron and potash were given three times a day, and a mixture of the syrup of squills and syrup of wild-cherry bark was taken when the cough was severe. July 15th—Fine, crepitant râle accompanying inspiration at inner extremities of both clavicles ; inspiration jerking, especially at right side ; some prolongation of expiration at the upper part of the right back. Omit iron. R. Ol. morrhue, $\mathfrak{z}i$., three times a day ; omit cough mixture. R. Tinct. opii camph., $\mathfrak{z}ss$. ; naphthæ, $\mathfrak{z}i$. ; syr. tolut., $\mathfrak{z}iss$. M. One drachm every three hours.

The cough was relieved after this, but she was much distressed by pain in the left shoulder, and by copious sweating at night ; the latter symptom seemed to be relieved by the oxide of zinc, six grains of which were taken at bed time. July 26th—She was vomited and purged after eating apple-pie surreptitiously obtained, and appeared considerably prostrated with increase of the pain, which was referred sometimes to one shoulder, sometimes to the other, and at times to the right side. No change was noted in the physical signs till Aug. 11th, when an inspiratory crepitus was found at the lower two thirds of both backs, with some dulness on percussion over the same space ; the cardiac sounds remained the same. On the 14th, the zinc was omitted ; on the 16th she was found suffering from vomiting and extreme prostration, the apparent consequence of a "small piece" of apple which she had obtained the day before. This prostration lasted upwards of forty-eight hours, the pulse being imperceptible a part of the time, though wine was administered. Aug. 18th—No vomiting ; pulse 108 ; pupils dilated ; considerable œdema of face ; much disturbed by palpitation and by sweating at night. R. Zinc. oxid., grs. iij. at night. Omit cod-liver oil and cough mixture ; sherry wine, half an ounce twice a day. Aug. 23d—Her prostration has increased ; the œdema has very much increased and become more general ; for two or three days she has complained of dyspnœa, and had quite a severe paroxysm last night ; there has been some tendency to diarrhœa. R. Mist. cretæ, $\mathfrak{z}ss$. ; tinct. opii, gtt. iv., after each discharge. Aug. 25th—The urine contains albumen in great abundance, with some pus corpuscles and small waxy casts of the tubuli ; she slept rather better ; the diarrhœa continues ; crackling is heard throughout both backs. The paroxysms of dyspnœa became more severe after this date ; vomiting set in with some urgency, but the diarrhœa was relieved ; œdema increased ; dulness of percussion and feebleness of the respiratory murmur over the left back were noted Sept. 4th, when the pulse was growing imperceptible, and the extremities cold. Some chocolate-colored expectoration was seen on the 7th, on which day she died, at $4\frac{1}{2}$ o'clock, P.M.

Autopsy, by Dr. ELLIS. Brain rather soft, but not decidedly morbid ; in the longitudinal sinus, adherent to the surface, was a small, purulent-looking coagulum. The left pleural cavity contained thirty-six ounces of bloody serum, and the surface of the lung was covered with a recent false membrane ; half a pint of serum in the right cavity. Firm, dark-red portions in the upper and lower lobes of the right lung, showed where blood had been effused ; the same appearance, but more extensive, was seen in the anterior and posterior parts of the left lung ; at one spot a yellow, purulent-looking line surrounded the red mass, and indicated an older effusion than the others. The heart weighed $8\frac{1}{2}$ ounces. In the right ventricle were many old, yellowish coagula of small size, the largest being about half an inch in diameter ; this latter contained a cavity filled with a puriform fluid, which was composed of minute granules and globules like those found in softened fibrine. An irregular, but smooth and firm cretaceous mass, half an inch in diameter, was attached to the edge of the mitral valve ; much fibrine deposited upon the valve and the surface of the auricle ; aortic valves a little thickened. The spleen weighed $11\frac{1}{2}$ ounces ; at each end was an irregular, yellowish-white mass, from one to two inches in diameter ; smaller, but similar formations elsewhere. The cortical substance of the kidneys was lighter colored than usual, and just beneath the surface were masses like those in the spleen, the largest measuring an inch superficially, and a quarter of an inch in thickness.

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MASSACHUSETTS MEDICAL SOCIETY.—In our remarks upon the revised edition of the By-Laws of the Massachusetts Medical Society, in the last number of the JOURNAL, we omitted to call the attention of the Fellows to the “Digest of the Laws of the Commonwealth relating to the Society.” This was prepared by the Corresponding Secretary with great care, by comparing the several acts of the Legislature relating to the Society, and retaining only those provisions which are now in force. Any Fellow who had occasion to refer to the various Acts published in the edition of 1850, must have found it difficult to decide upon some points with certainty, on account of one Act modifying or repealing another. This Digest presents an accurate and concise statement of all the rights and privileges to which the Society is entitled, arranged in a systematic form.

CITY REGISTRAR'S REPORT FOR 1859.—The Annual Report of the City Registrar has been received. It appears that the number of births for 1859 was 5,895, being an increase of 298 over the number born during the previous year—a result attributable to the return of the material prosperity after the financial depression of 1857–58. The ratio was about 1 in 30.53, while in Philadelphia, for the same year, it was only 1 in 38.43. The largest number of births was in December, which seems everywhere to be one of the most prolific months. The marriages were 2,481 in number, being an increase of 326 over the num-

ber of 1858 ; but 647 less than that of 1854. This gradual decrease in the number of marriages the Registrar is unable to account for, although he alludes to the cause as one to which it may not be advisable openly to intimate.

The mortality for the year was 3,738, being 102 less than were reported in the preceding year. The number of interments in the city proper was 160 only.

The Report is most creditable to the Registrar, Mr. Apollonio, and it is to be hoped that so faithful an officer may be retained for many years to come in a place for which he is so eminently qualified.

MEETING OF THE BOSTON SANITARY ASSOCIATION.—The first meeting of this Society was held in the Representatives' Hall, at the State House, on Thursday evening last. A large audience assembled to listen to the address of Dr. Edward Jarvis, of Dorchester. After speaking of the neglect of sanitary science, he showed by statistics, from the proceedings of societies in England, that cities are much more unhealthy than the rural districts. From a report of the Address in the *Boston Courier*, we copy the following :—

"There were thirty-six deaths in a thousand, in Liverpool, to thirteen in a country district named, and the proportion of persons who die yearly in England is thirteen to the thousand in the country, to one hundred and thirty who die in the cities. Every city has particular localities, marked by narrow streets, high buildings and crowded tenements, where disease makes the greatest havoc. The city is found to be very destructive to infant life ; five times as many children die in Liverpool, as in the country. Acute diseases are at all times more fatal in a compact than in a thinly populated district. When men gather together in masses they increase the chances of death and decrease the chances of life for themselves and their families. This is the case particularly with the poorer classes in the city, the rich escaping many of the disorders of their humbler neighbors by virtue of cleanliness, exercise, wholesome food, and other advantages derived from their position. Life is dealt out more liberally to those whom fortune favors, said the lecturer, and verified his statement by the statistics of Manchester, England, where the average of the wealthy is 58 years, and of the poor only 40 years, and in another large city 38 years to 27 years. It is stated that the years of the prosperous exceed those of the poor 133 per cent. in Liverpool and Manchester, and all the sanitary reports are full of such facts as these. The same is true of Scotland and France.

"The interest in sanitary matters which prevails so extensively abroad has not till quite recently met with sympathy in the United States. A few minds here and there have been observers of society, and considered its strength and its weakness. A Fall River physician has noticed that the number of deaths in that city is greater than in any other in the country. Mr. Lemuel Shattuck was mentioned by the lecturer as one who had done much to show the waste of life among us, and the quarantine associations were the subject of some eulogium, and the labors of Dr. Clark, of this city, and Dr. Stevens, of Vermont, Dr. Bell's work on the hygiene of New York, pronounced a most valuable contribution to science, were highly praised. Dr. Jarvis thinks there is ample opportunity for the beneficial exercise of sanitary science in this country, although it is not troubled, like the nations across the water, with cities founded in the dark ages, and inhabited by people who suffer to-day from restrictions established in times long past. The fact that six hundred persons become insane every year in the single State of Massachusetts, he considers one deserving the thoughtful consideration of a wise Legislature. At Macclesfield, England, a great change in the amount of mortality was noticed after some sanitary regulations had been carried out,—a diminution of one fifth in the frequency of deaths and an increase in the same proportion of the length of life. The rate of mortality was reduced in one street 32, in another 40, and in another 60 per cent. Sickness had diminished as well as

death. The relief books of the physicians return that from 24 to 29 per cent. less cases of disease occur in the improved parts of the town. The thing has been reduced to such a system in England that the scientific men speak of preventing a certain per centage of deaths, a year in advance, with the same confidence that the farmer predicts the success of his wheat crop. We are now called to the same glorious work. A harvest of human life, as certain and as great as they are now reaping in England, will be the reward of our exertions.

"At the conclusion of the address, Josiah Quincy, Jr., moved a vote of thanks to the speaker, which was carried by acclamation. The subject of the next lecture, assigned for Thursday fortnight, will be 'Smallpox and Vaccination.' At a business meeting, held last evening, the following officers of the Society were elected:—President, John Ware, M.D.; Vice Presidents, Hon. Josiah Quincy, Jr., F. W. Lincoln; Corresponding Secretary, George H. Snelling, Esq.; Recording Secretary, Josiah Curtis, M.D.; Treasurer, Otis Clapp; Directors, Dr. Henry G. Clark, Dr. Edward Jarvis, Rev. E. E. Hale, Dr. George Fabyan, Hon. Thomas H. Russell and Henry B. Rogers.

TINCTURE OF ALOES AND MYRRH. WHAT IS IT?—*Messrs. Editors,*—The druggists of this city, it is said, have calls for very large quantities of Elixir Proprietatis, and not for very large quantities of Tinct. of Aloes and Myrrh. The public call for the former, the medical profession write for the latter. "Where I put up an ounce of the tinct. of aloes and myrrh upon a prescription, I sell gallons of elixir pro. to customers without prescriptions." This was said to me by an apothecary in large business, whose tincture was under discussion.

Properly, the druggist would make his tincture by the prescription laid down in the United States Pharmacopœia. *Practically*, a large number make it by private prescriptions of their own, to suit the popular taste; and for convenience sake, they use the same preparation in filling a physician's prescription. When we write for tincture of aloes and myrrh, therefore, we may have returned exactly what we want, or we may receive an almost inert medicine.

Tincture of aloes and myrrh, according to the United States Pharmacopœia, is made as follows:—"Take of aloes in powder, *three ounces*; saffron, *an ounce*; tincture of myrrh, *two pints*. Macerate for fourteen days, and filter through paper." When made by this formula, water added to it produces a very copious deposit of the resinous matters contained in it. Made by some of the private prescriptions, there is no more deposit than if the water were added to brandy. Some of the private prescriptions designate *Smyrna saffron*; some of them *English saffron*; some of them mix the two saffrons; and others say, simply, *saffron*. Some of the preparations are put up with alcohol and water; some with diluted alcohol and syrup; some with Medford rum. Some of them contain carbonate of potassa, and others do not.

Physicians may like to see how the different preparations compare with each other, and to the Massachusetts College of Pharmacy the subject is commended for their action, in the hope that they will advise their Fellows to follow the standard of the Pharmacopœia, in making tincture of aloes and myrrh. If the public wish to buy any particular brand of elixir pro., they can make that as they please, also.

"The dose is from one to two fluid drachms," says the Dispensatory. I will give the amount of solid matters used in preparing the larger dose, as obtained from the Pharmacopœia, and afterwards as obtained from four different private prescriptions.

No. 1.—(*United States Pharmacopœia*.) Aloes, $11\frac{1}{4}$ grains; myrrh, 10 grs.; saffron, $3\frac{3}{4}$ grs. Vehicle, *alcohol*.

No. 2.—(*Private*.) Aloes, $6\frac{2}{3}$ grs.; myrrh, $6\frac{2}{3}$ grs.; saffron, $3\frac{1}{3}$ grs.; carbonate of potash, 1 gr. Vehicle, *alcohol, water and simple syrup*.

No. 3.—(*Private*.) Aloes, $3\frac{3}{8}$ grs.; myrrh, 3 grs.; saffron, 1 gr.; sugar, 3 grs. Vehicle, *Medford rum*.

No. 4.—(*Private*.) Aloes, $2\frac{1}{4}\frac{1}{16}$ grs.; myrrh, $2\frac{1}{4}\frac{1}{16}$ grs.; saffron, $1\frac{1}{2}\frac{1}{6}$ gr.; carbonate of potash, $\frac{4}{5}\frac{1}{2}$ gr. Vehicle, *alcohol and water*.

No. 5.—(*Private*.) Aloes, $2\frac{7}{8}\frac{1}{4}$ grs.; myrrh, $2\frac{1}{8}\frac{3}{8}$ grs.; saffron, $1\frac{1}{8}\frac{3}{8}$ gr.; carbonate of potash, $\frac{5}{8}\frac{1}{4}$ gr. Vehicle, *diluted alcohol*.

It is worth while to compare the five, not merely for curiosity, but for the purpose of calling the attention of druggists to what some of them do not seem to remember, that their preparations are not always what we expect to get when we write for them. I would not have it supposed that every one makes his tincture by a private prescription, for some of them follow the book; some of those who do not follow it, rank among the better class of druggists.

This is not the only preparation in which private prescriptions are used. Those which occur to me now are, the compound tincture of gentian, compound tincture of rhubarb, compound spirit of lavender, myrrh mixture, and compound infusion of senna.

The above is written for the purpose of calling the attention of the College of Pharmacy to the Pharmacopœia. A new edition of that work is now in the course of preparation, and when it appears each physician and druggist should own a copy, and know something of its contents. If a physician wishes to have more or less of any particular ingredient in a prescription, he has only to frame his prescription accordingly.

If the directions of that work are not followed, the valuable time of its compilers will have been spent in vain. C. E. B.

M. BARTHEZ, physician to St. Eugénie Hospital, sent to the meeting of the Society of Surgery, of November 30th, an enormous ovarian tumor, taken from a child eleven years of age, who died in the hospital. It weighed nineteen pounds, and was composed of multilocular cysts, enclosed in a spongy tissue, flabby, and developed in its sides. It resembled those which we see very often in adults; they are very rare in children, and it is in this respect that this specimen presents a great interest.—*Cleveland Medical Gazette*.

Dr. G. S. BAILEY, a retired physician of Iowa, states in a letter to the editors of the *Journal of Materia Medica*, that his only son, after having been treated six years for epilepsy with every remedy that medical skill could suggest, without success, was finally cured with the hydrocyanate of iron, by Prof. D. L. McGugin, of Keokuk. The formula employed corresponds with the one used by Dr. Treat (*Cin. Lancet and Observer*, June, 1860, p. 383): hydrocyanate of iron, one drachm; powder of valerian, two drachms; extract of Indian hemp, one drachm, being originally added by McGugin. Make into one hundred and twenty pills. One of them is to be taken three times a day, gradually increased to four.—*Cin. Lancet and Observer*.

A NEW WORK BY PROF. GROSS.—Prof. Gross announces that he is engaged upon a systematic treatise on the Injuries and Surgical Dis-

eases of the Scalp, Skull and Brain, and its Membranes, and he asks the coöperation of the profession in furnishing him "such cases and practical reflections as may have arisen in the course of their experience."—*American Medical Times*.

At the Annual Meeting of the New York Pathological Society, held Wednesday, January 9th, 1861, Dr. A. C. Post was elected President; Drs. T. C. Finnell and D. S. Conant, Vice Presidents; Dr. Geo. F. Shrady, Secretary; and Dr. Wm. B. Bibbins, Treasurer.—*Id.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JANUARY 19th, 1861.

DEATHS.

	Males.	Females	Total
Deaths during the week,	33	31	64
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	36.6	38.6	75.2
Average corrected to increased population, . . . . .	..	..	84
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
11	1	6	4	0	0	0	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.124	Highest point of Thermometer,	36°
Highest point of Barometer,	30.592	Lowest point of Thermometer,	10°
Lowest point of Barometer,	29.618	General direction of Wind,	North.
Mean Temperature,	19°.8	Whole am't of Rain in the week	2.090

For the week ending January 19th, omitted last week:—Mean of barometer, 29.991; Highest point of barometer, 30.322; lowest point of barometer, 29.538. Mean of thermometer, 21.37°; highest point of thermometer, 37°; lowest point of thermometer, 3°. General direction of wind, North and Northwest. Amount of rain (melted snow), 0.452.

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 535.

		BAROMETER.					THERMOMETER.					SNOW.		Mean Amount of Cloud. 0 to 10.
		7 A.M.	2 P.M.	9 P.M.	Mean	Highest Point.	7 A.M.	2 P.M.	9 P.M.	Mean	Time	sure.	New-fall.	
Monday, Jan. 7,		29.34	29.44	29.54	29.45	Lowest Point, 29.19.	23	25	21	19.66.	0 hours, 00 m.	0.00.	7.66	
Tuesday, " 8,		29.59	29.59	29.54		Highest Point, 29.59.	18	16	11					
Wednesday, " 9,		29.45	29.34	29.25			8	19	18					
Thursday, " 10,		29.48	29.59	29.49			5	10	10					
Friday, " 11,		29.19	29.20	29.43			26	32	18					
Saturday, " 12,		29.49	29.57	29.59			17	21	22					
Sunday, " 13,		29.51	29.43	29.36			23	36	34					

COMMUNICATIONS RECEIVED.—Tracheotomy in Croup.

BOOKS RECEIVED.—On Diabetes and its Successful Treatment. By John M. Camplin, M.D., F.L.S. (From S. S. & W. Wood, New York.)—Transactions of the Ohio State Medical Society, 1860.

MARRIED.—In Roxbury, 16th inst., Francis Minot, M.D., of Boston, to Sarah Parkman Blake, daughter of Samuel P. Blake, Esq., of Roxbury.—At Montpelier, Vt., Jan. 10th, Dr. George P. Greeley, of Hollis, N. H., to Miss Mary P., daughter of Dr. Julius T. Dewey, of Montpelier.

DIED.—At Petersham, Dec. 31st, 1860, of pneumonia, Dr. Samuel Taylor, aged 50 years.

DEATHS IN BOSTON for the weeking Saturday noon, January 19th, 64. Males, 33—Females, 31.—Apoplexy, 1— inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 3—consumption, 11—convulsions, 2—croup, 1—debility, 2—puerperal disease, 2—dropsy, 2—dropsy of the brain, 5—drowned, 1—scarlet fever, 6—hæmorrhage, 1—disease of the heart, 1—disease of the hip, 1—insanity, 1—intemperance, 1—disease of the kidneys, 1—disease of the liver, 1—disease of the lungs, 1—inflammation of the lungs, 4—old age, 1—paralysis, 3—pleurisy, 1—rheumatism, 1—scrofula, 1—unknown, 7.

Under 5 years of age, 28—between 5 and 20 years, 7—between 20 and 40 years, 13—between 40 and 60 years, 12—above 60 years, 4. Born in the United States, 47—Ireland, 16—Germany, 1.

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No. 27.

CROUP—TRACHEOTOMY—RECOVERY.

[Communicated for the Boston Medical and Surgical Journal.]

On Friday, January 4th, I was called, at 10, A.M., to visit B——, aged 4½ years. On arrival, I found her suffering from “membranous croup.” The history of the case, as related by the parents, was as follows. “The Saturday night previous she appeared to have taken cold, and had a dry, hard cough. The next morning she appeared better, but commenced that night to be stuffed up and breathe with difficulty,” which symptoms continued to increase until I saw her. She had had no medical attendance. She was then breathing with great difficulty; dry, sonorous inspiration; hoarse, and unable to speak above a whisper; lips blue; eyes suffused; pulse rapid and feeble; considerable jactitation, and tendency to drowsiness. I gave an emetic of sulph. cupri, which soon operated, but with no relief. I stated to the parents that, in my opinion, the case was hopeless, as far as medical treatment was concerned, and suggested tracheotomy as affording the only, and that an extremely small chance for relief. At my request, they consented to have Dr. Kimball called in consultation. Her residence being several miles out of town, we were unable to get there until late in the afternoon, when we found the patient still more exhausted than in the morning, and concluded to operate at once. I opened the trachea with but little hæmorrhage; not having any tube expressly intended for the purpose, I substituted a piece of a large catheter, which answered very well. The patient did not seem at first to be any relieved, and we were not at all encouraged. We ordered tincture of veratrum viride, two drops every three hours; demulcent drinks; the atmosphere of the room to be kept moist; also gave directions to have the tube kept free with a feather, if it should become clogged.

Saturday, 5th, 10, A.M.—Found the patient slightly relieved; countenance better; pulse slower, and more full. During the

morning, before I arrived, the tube had slipped out. I found the wound swollen, its edges everted and covered with a white exudation. The incision in the trachea was clear and open, air passing in readily. On taking everything into consideration, want of a proper instrument, &c., I concluded to let it alone so long as the wound in the trachea remained open and free. I gave another emetic of sulph. cupri, which in a few minutes expelled, by the mouth, several pieces of "false membrane," with about two ounces of very tenacious mucus. Ordered a cathartic of hyd. sub-mur., ipecac. and rhei; to have the wound occasionally sponged with tepid water; continue the veratria every four hours.

Sunday, 6th, 2, P.M.—Not as well; breathes with more difficulty than yesterday, but not with so much effort as before operation. Countenance pale and anxious. No discoloration of lips, or inclination to sleep. Wound in trachea open; two or three small shreds of "false membrane" protruding. Pulse more rapid and weak. Gave another emetic, which operated immediately, expelling some of the exudation with tenacious mucus. Appeared relieved after operation of the emetic. Ordered two grains carb. ammonia every hour; one teaspoonful of the following. R. Syr. ipecac., \mathfrak{z} j.; syr. senegæ, syr. prun. Virg., aa \mathfrak{z} iv. M. To be repeated every two or three hours. Rubefacients to feet.

Monday, 7th.—Much better; slept quietly two hours during the night. Fever abated; skin moist; cough not so dry or urgent. Wound in trachea still open and free. Has some appetite; asked for, and may have, a cracker. Ordered olei ricini, half an ounce. The expectorant to be continued; also the sponging of the wound. Omit all other medicine. Directed great care to be used in order to keep the air in the room warm and moist.

Owing to sickness, I was unable to visit the patient again, but a messenger came daily to report her condition.

Tuesday, 8th.—Was quite bright and playful last evening. Slept well. Cough loose and expectorates freely; she is very hungry. Wound shows some disposition to close, but still admits air. Continue expectorant mixture p. r. n.. May have light nutritious diet.

Wednesday, 9th.—Doing well. Cough loose and subsiding. Spoke aloud to-day for the first time. The little patient continued rapidly to improve; the wound closed, and is now entirely well.

I cannot in justice close the report of this case without acknowledging the obligation I owe to Dr. Kimball, not only for his efficient aid in performing the operation, but for his prompt decision in regard to its expediency, without which the consent of the friends would with difficulty have been obtained.

HENRY B. C. GREENE, M.D.

Saco, Me., Jan. 18th, 1861.

OBSERVATIONS UPON A MORBID CONDITION OF THE NECK OF
THE BLADDER NOT DESCRIBED BY SURGICAL AUTHORITIES.

BY D. D. SLADE, M.D., BOSTON.

[Continued from p. 520.]

Treatment.—IN our treatment, it must be our first care to ascertain the cause of the contraction, and according to the cause or causes, so will the treatment be either medical or surgical or both combined.

Whatever may be the therapeutical means employed, however, in every case it will be found necessary at the outset to accustom the canal to the presence of instruments, the introduction of which, under proper management, tends to overcome the morbid sensibility of the parts. It is therefore to surgical treatment, that we are obliged, in the great majority of cases, to have recourse, and of this we shall first speak.

As we remarked, when treating of the diagnosis of contraction, that it was by urethral exploration that we are to establish the presence of this affection, so in the treatment, it is highly important to understand the kind of instrument to be used, and the method of its employment.

Both for the exploration of the urethra in the establishment of our diagnosis, and at the commencement of treatment, we give preference, decidedly, to a medium-sized wax bougie. If we make use of this instrument, care should be taken to bend the end, for the space of half an inch or so, in order to avoid the sinus of the bulb, this portion of the canal in contraction being drawn downward and backward by the muscles of the perinæum; we may also advise the employment of the gum elastic bougie, with an olive-shaped button at the small extremity. This instrument is admirably suited to detect the smallest degree of contraction.

Whatever instrument may be selected, whether bougie or catheter, it is to be well lubricated with lard, cold cream, cerate, or some other equally tenacious substance, which is greatly to be preferred to the olive oil so commonly in use. Thus prepared, the instrument is to be introduced into, and carried along the urethra with the utmost care and gentleness. Should the patient complain of great pain in spite of these gentle manipulations, it is much better to desist at once, and remove the instrument, than it is to persevere; for this morbid sensibility of the urethra is to be overcome only by a very gradual treatment, and by great patience and perseverance on the part of both physician and patient.

The instrument should be introduced and passed every day or every other day, according to circumstances, and should be retained for a few moments only at the commencement. As the irritability of the canal is thus gradually overcome, the size of the instrument employed should be larger, and the use of it must be con-

tinued until the contraction is entirely overcome. An occasional passage of the bougie will be also requisite to keep the canal free.

We much prefer the gradual dilatation of contraction in the manner which we have described, to that which is produced by forced and sudden measures. In the former case, the method of treatment is slow, and in many cases tedious, but it is, at the same time, followed by more satisfactory results, than when violent means are adopted. We should, therefore, under no circumstances, advocate the forced method of dilatation.

All complications which may arise during the use of instruments, are, of course, to be met by appropriate treatment. Great care should be taken to avoid inflammatory action, which may be guarded against by a proper exercise of judgment as to the length of time and the frequency with which the instruments should be employed.

Cauterization is sometimes applicable in the treatment of contraction. In those cases where this affection has originated in, and has been kept up by gonorrhœal inflammation, this mode of treatment is often followed by good results, especially after other local and general measures have been tried. It is not applicable where the contraction depends upon any particular diathesis.

The mode in which cauterization is effected is worthy of a brief consideration. The nitrate of silver is the substance to which we give the preference, and instead of using *Lallemand's porte-caustique*, which is objectionable on many accounts, not the least important of which is its liability to become broken in the urethra, we employ an instrument of this description.

It is made like a common silver catheter; at the posterior surface of its vesical extremity is an opening, about three quarters of an inch in length, by two or three lines in width. This opening corresponds with the caustic which is placed in the cup attached to the *porte-caustique* in the interior of the canula or tube. Instead of melting the caustic into the cup, as is generally done when *Lallemand's* instrument is used, the cup is to be partially filled with cerate, tallow, or some similar substance, over which is to be sprinkled a thin layer of the powdered salt.

The instrument thus prepared is carefully introduced into the urethra, and carried down to the seat of the contraction. The inner rod or stylet, which was previously retracted, is now pushed on until the cup containing the caustic is opposite to the opening just described. By a rotary movement of the tube, the caustic is brought into contact with the parts which we wish to cauterize.

Cauterization, however, is a process to be avoided, if possible, in all cases where the urethra is implicated, and it is very rarely requisite in the treatment of contraction. In the cases dependent upon the cause just mentioned, and where the gradual dilatation has failed to effect a cure, we may frequently obtain very satisfactory results by a process much less formidable than cauterization.

This consists in the use of certain pomades, such as the red precipitate, double mercurial, iodide of potash, &c., passed into the urethra by means of an olive-shaped bougie. The space comprised between the olive-shaped button and the shaft of the bougie, for the space of half an inch or more, is to be filled up with the pomade to be used; the remaining portion being well lubricated with cerate. The instrument thus prepared, is to be carried rapidly down to the neck of the bladder, and allowed to remain for a few moments, until the ointment has melted, and has diffused itself over the neighboring surface. This process is to be repeated every second or third day, according to circumstances.

We have advocated the passage of the bougie or catheter, for the purpose of overcoming the morbid sensibility of the urethra, so frequently met with. In the great proportion of cases, if this is practised with care and judgment, it answers its purpose admirably. But it must be acknowledged that there are cases in which the bougie so much aggravates the irritable state of the canal, and thus increases the disposition to spasm, that it becomes impossible to persevere in its use. In such cases, this irritability must be considered as constitutional, and as dependent, as well as the contraction, upon some particular diathesis, which is, in the majority of cases, either the strumous or rheumatic. It follows, therefore, that to overcome the contraction, it is an essential condition that the constitutional vice be remedied, and we must consequently have recourse to medical treatment, of which we shall now speak.

In the constitutional treatment of contraction, either pursued alone, or in connection with surgical means, we must, of course, first of all pay strict attention to dietetic regulations, and to the correction of all abnormal states of the digestion, and secretions. If we have evidence of a congested condition of the pelvic viscera, we should employ suitable means for its removal.

General baths, douches of cold water upon the pubes, groins and perinæum, followed by thorough friction of the skin; care to keep the bowels free by the use of gentle laxatives or enemata; regular exercise—these are all decided adjuvants in our treatment. We recommend, especially, the use of sulphur baths, particularly in those cases which are dependent upon rheumatism. These should be taken as often as every other day—the patient remaining in the bath for an hour, and their use maintained until some decided effect has been produced.

The treatment of complications must not be overlooked, and all sources of irritability are to be allayed.

In the administration of drugs, our attention should be particularly directed to the peculiar diathesis upon which the contraction may depend. For example, in those cases where we have to deal with nervous affections, with the tubercular diathesis, with chlorosis, or with general debility, the use of tonics and alteratives is indicated. The preparations of iron, especially the muriated

tincture, and the iodide of potassium, in small doses, and maintained for a length of time, will give satisfactory results. Coupled with the general treatment which we may adopt, certain local means of cure may be employed. These consist of anodyne suppositories, opiate enemata, belladonna ointment, &c. These local measures are particularly valuable in allaying the morbid sensibility of the bladder and rectum.

The local application of electricity may be tried with good results. In a few cases, we have found that it has operated beneficially.

The internal use of belladonna in those cases where there is tendency to an irritable condition, and to spasmodic action of the urethra, is indicated. In the cases of children, who suffer from incontinence of urine, dependent upon contraction, the decided benefit resulting from the administration of belladonna cannot be denied.

Finally, in our treatment, we must not forget to advise the utmost attention to certain points which, though apparently insignificant, exert a marked influence upon therapeutics. Exposure to cold must be carefully guarded against. Flannel must be worn constantly, sexual intercourse is to be abstained from, all sources of excitement are to be avoided, and in certain cases the residence in a warm climate is to be taken up, if possible.

Although some cases of contraction are rebellious to any and to all treatment, which we may bring against it, still it will be found that the disease in itself will yield either to local treatment carried out with skill and judgment, or at least to local, combined with general curative means.

In a great many of the uncomplicated cases of this affection, the mental symptoms, of which we have spoken, soon pass away, as the treatment progresses. The mind of the patient becomes tranquillized, when he finds that the diagnosis is correct, and that there is really neither the calculus nor stricture, the existence of which he had such apparent reason to fear.

We have appended a few cases from our note-book, illustrative of the affection which we have endeavored to depict. Every-day's experience not only strengthens our opinion of the existence of such a disease as a permanent contraction of the muscular fibres of the surgical neck of the bladder, but that it is one which frequently presents itself to the notice of almost every practitioner.

We may hope that the observations of the preceding pages may have the effect to throw light upon a class of cases, which are often, very unsatisfactorily, set down by the practitioner as stricture of the urethra, or even as some more serious lesion of the urinary organs.

THE VALUE AND THE FALLACY OF STATISTICS IN THE OBSERVATION OF DISEASE.

A BOYLSTON PRIZE ESSAY, BY DAVID W. CHEEVER, M.D.

(Concluded from page 517.)

SUCH are the quite positive conclusions that tubercles, in any organ of the body, after the age of fifteen years, involve their presence in the lungs: that chronic peritonitis, too, indicates pulmonary tubercles: that phthisis so often commences in the upper lobes, that we have been led to call those cases where the indications of its presence are found first at the base of the lungs, the *anomalous* development of tubercles. Again, how valuable is the knowledge that bronchitis and pneumonia oftener begin in the lower lobes, and that the former is mostly found in both lungs at once, but the latter only in one. No theory, and no speculation could ever have led to these results of numeration and averages. Such spontaneous creation of laws must have escaped our reasoning, because they do not agree with any of our preconceived opinions. Yet our ignorance of the conditions on which they depend is no bar to their utility. Although, then, the want of experiment, the presence of causal relations, from which we cannot disencumber facts, and the influence of various unknown powers modifying the phenomena of disease, must all moderate our expectations of the benefit of the numerical method, yet we have some useful results which cannot be done away with. So, too, in the typhoid affection, we find the characteristic lesion of Peyer's glands, the rose-colored eruption, the lassitude, the bleeding from the nose, the tympanites, as well as other pathognomonic symptoms, distinguishing it from typhus, marked out for us by the numerical method, not as invariable, but as present in the majority of cases.

So much accuracy has been conferred upon the student of medicine by physical signs, by chemistry, the microscope, and, to a certain extent, by the numerical method, that it has been asserted, that even Sydenham would have been but a smatterer beside the modern medical graduate. Yet, with all this, we venture to say that there have never been, and probably never will be in our profession, men of greater natural powers of observation, and of description, than Hippocrates, Sydenham, and Hunter, nor any who made better use of the light which their times afforded them.

Such a tendency has been awakened in later times to extend the numerical method to all branches of medical inquiry, that our periodical literature overflows with statistics, and every hospital annually tabulates the results of treatment. This is as it should be. And if we are often called to notice fallacies in the results of statistics, we can also record cases of the truly scientific employment of them. Such are to be found in the statistics of insanity, in the recent work of Messrs. Bucknill & Tuke on Psychological Medicine; and in a very carefully tabulated Consideration of

the Etiology of Continued Fever, by Charles Murchison, in the *Medico-Chirurgical Transactions*, Vol. XXIII. 1858. These leave nothing more to be asked from the careful employment of the numerical method, and carry its results as far as they are capable of going.

Louis himself mentions, as striking proof of the corrective tendency of the numerical method over the approximative one of simple experience, that, according to Corvisart, dilatation with thinning of the walls of the heart is common; but that, on counting in his book, only one case was found. So, too, Bertin and Bouillaud make the same assertion. Yet, in forty-five cases of heart disease observed by Louis, no instance of it was seen. Laennec, also, says that ulcerations of the trachea are common in phthisis, but uncommon in those who have not tubercles; yet, on numerical analysis, the very reverse is found to be the fact. But if this is sufficient to show the superiority of tabulated to remembered observation, it also indicates that morbid anatomy affords a much more profitable field for the numerical method, than the uncertainties of pathology can furnish. Both, indeed, must be as much superior, for its application, to therapeutics, as the science is superior to the art of medicine. For the additional uncertainties of treatment must still more prejudice its results.

Medicine has two provinces, to cure, and to prevent disease. The latter, though by far the most important, has ever been thought an inferior department, and been studied less than the former. Yet by how much is prevention nobler than cure! And it is in this department that most real progress has been, and can be made.

And here we may find the most profitable, as well as most certain application of the science of medical statistics. Etiology, as affected by vital and hygienic laws, has made more progress by the use of the numerical method, than in other ways.

The influence of a certain miasm, in producing intermittent fever, is so constant and invariable, that, like the contagion of smallpox, it requires no figures to prove it. Some few morbid agents are so constant as to need no calculation.

But it is the more doubtful ones that vital statistics have peculiarly enlightened. Such are the causes of typhoid and typhus fevers, of phthisis, of the spread and permanence of cholera and dysentery, &c. &c. The etiology of continued fever from bad drainage, cess-pools, and other poisonous influences, has been very well illustrated by the treatise of Dr. Murchison, before referred to. So, too, the returns of emigration, the reports of prisons, and the mortuary averages of over-crowded localities, have done much to indicate the way of prevention of typhus fever. Phthisis claims a much wider range of influences. But cholera and dysentery have, in later epidemics, been strikingly increased or diminished by certain local hygienic influences. In the localities most advanced in

hygiene, their rate of annual mortality has steadily decreased. Vital statistics are here invaluable. And we can well believe that "if the attention of society were once given to these points, the saving of life would be such as would not only modify our tables of mortality, but affect the fortunes of nations."

It is very true, also, that the general tendency of the use of statistics is to discourage *à priori* conclusions, and that they tend to exactness, both in the observer, and the facts observed.

Yet we can hardly afford to substitute, in all cases, mathematics for logic; arithmetic for induction, or calculation for reason, as M. Louis has been accused of doing. Even La Place styles theory "common sense applied to calculation;" and adds that reasoning, logic and induction are as useful in medicine as numbers. Such a method has been styled *eclecticism* by its author (M. Double); and, as an opponent to Louis, he sums up his argument as follows:

"Individuality is an invariable element in pathology; therefore every exclusive theory is absurd in pathology, and every absolute method repugnant to therapeutics. Numerical calculations, open to many sources of fallacy, are in no degree applicable to therapeutics."

A good deal of force is to be found, in opposition to the fallacy and the merely approximate nature of the numerical method, in the certainty derived from that mathematical formula, known as the *calculus of probabilities*.

Since the use of a very large number of observations, in every case, is impracticable, how shall we know what value to attach to statistical conclusions derived from a limited series of facts only?

By the calculus of probabilities; which must be received as demonstrated authority by those who do not choose to study it mathematically. This method proves to us that the probability of a given event's happening does not exactly coincide with the actual number of times it has been observed to happen, but varies between limits somewhat greater and somewhat less than the number observed; and that these limits, moreover, are wider in proportion as the observations are few, and approach nearer as the observations become more numerous. We subjoin the mathematical formula, which determines these results, taken from the work of M. Gavarret, by Dr. Bartlett.*

* If a represent the number of times that one of two events (call it A) has happened; b , the number of times that another event (B) has happened, and c represent the total number of observations collected, so that a plus b equal c : then the number which expresses the observed frequency of the event A, is not the true number, but merely an approximation to it, more or less close as the number of observations is greater or less. That number will, in any case, lie between

$$\frac{a}{c} + 2\sqrt{\frac{2 \cdot \frac{a}{c} \cdot \frac{b}{c}}{c}}$$

and

$$\frac{a}{c} - 2\sqrt{\frac{2 \cdot \frac{a}{c} \cdot \frac{b}{c}}{c}}$$

or at least, there are 212 chances to one in favor of its being comprised within those limits.

To take an example, and one from Louis himself. He has given, as the result of his treatment of 140 cases of the typhoid fever, 52 deaths, and 88 recoveries: $52 + 88 = 140$.

The mortality, therefore, might be supposed to be represented by $\frac{52}{140} = 0.37143$. Hence we should judge the mortality of typhoid, under the treatment of M. Louis, to be, approximatively, 37 deaths in 100 cases, or about .37 per cent.; a little more than one third.

Yet by using the calculations referred to, we shall find that the mortality may vary between the limits of

$$.37143 + .11550 = .48693, \text{ and}$$

$$.37143 - .11550 = .25593:$$

or approximatively, between .49 and .26 per cent.

In other words, that, by employing precisely the same treatment in a large number of cases of typhoid fever, we may lose from a quarter to one half of our patients; and not one third, as stated by M. Louis.

So, too, in comparing *any other* method of treatment with that of Louis, the aggregate sum of the conditions or circumstances remaining the same, it cannot be considered certain that the method is better or worse than his, unless the difference in the result exceeds these possible limits.

For to show the advantage of greater numbers of observations, we will take the following case :*

Let us suppose that 500 cases of a given disease have been subjected to a given treatment, with the result of 100 deaths, and 400 recoveries : and another 500 cases of the same disease have been subjected to a different treatment, with the result of 130 deaths, and 370 recoveries. In the first class, the ratio of mortality is as 20,000 to 100,000; in the second class, this ratio is as 26,000 to 100,000 ; the difference between the two being 6,000 in 100,000. An application to these numbers of the law of probabilities shows, that the limit of possible variation is equal to 7,508 in 100,000.

We cannot reasonably conclude, therefore, that the first method of treatment is better than the second, because the difference in the result *falls below* the limit of possible variation by the calculus of probabilities ; a variation which may be the effect of chance. The number of cases is not sufficient for the answer sought. But, by extending our observation to twice the number of similar cases, in which the ratio of mortality remains in each class the same, we find the following results : The limit of possible variation, ascertained by the calculation of probabilities, when applied to a thousand cases, instead of five hundred, sinks from 7,508, in 100,000, to 5,306, in 100,000 ; which is *surpassed by* the observed difference in the ratio of mortality, this being as 6,000 in 100,000. Here then

* Bartlett's Philosophy of Medical Science.

we have a positive demonstration of the superiority of the first mode of treatment over the second; and this demonstration got solely by increasing the number of our observations.

These calculations, it should be remembered, have nothing to do with the nature of the facts observed, but solely with their number. As far as they can be carried into medical investigations, they are, therefore, invaluable. We have before attempted to show why they are not generally applicable. And it must be evident to all, that the great difficulty is in getting strictly comparable facts, and enough of them. For the mechanical exactness of the numerical method makes one suspicious of it, when applied to the notoriously imperfect science, and still more fallible art, of medicine. Comparable facts may be employed, in which the sum of possible causes remains the same; that is to say, which are comparable with regard to those influences under our control. If the degree of variability of aggregates be limited by the calculation of probabilities, the individual facts composing the aggregates may be fixed enough to be comparable.

But the aggregate of possible causes must remain invariable; otherwise the whole calculation falls to the ground, or the law will be modified by the new element which has been introduced.* Thus, in 1824 and 1825, the number of legitimate births in France amounted to 1,817,572. Of these, 939,641 were male, and 877,931 were female. During the same period, the number of illegitimate births was 140,566. Of these, 71,661 were male, and 68,905 were female. Among the legitimate births, the proportion of males is as 51,697 to 100,000; while, among the illegitimate births, the proportion is only as 50,980 to 100,000. Now the difference might have amounted to 391 in 100,000 births, without surpassing the limits of the law of probabilities; but it really amounts to 717 in 100,000 births. Some difference must exist, then, in the sum of the possible causes to explain this. And this difference can only be found in the fact of legitimacy, or illegitimacy. In the same way is to be ascertained the law of the average number of children born to each family. But here, also, changes in the physical, moral, or social condition of the people may alter the sum of possible causes.

Therefore, as a general deduction from the above, we have the following rule. Each series of relationships and phenomena must be fixed enough to be comparable; must consist of large numbers; the limits of variability must be determined by the calculation of probabilities; and the sum of possible causes must continue uniform. The law will be positive in proportion to the completeness of the above conditions.

Yet, with all these discouraging requisitions, the faculties of comparison and generalization still remain divine attributes, and

* Elisha Bartlett, *op. cit.*

those which proudly distinguish the human intellect from the instinctive and ever-uniform acts of the brute creation. If the vastness of the observations to establish a law must bear a fair proportion to the vastness of the circumstances controlling, or at least concomitant, under which the phenomena occur, yet we should consider that, in proportion to the complexity of the phenomena, is augmented the number of relations in which they *may* be surveyed and observed. All practical expedients and empirical rules are not to be neglected because they have not been rigorously defined and limited by the numerical method. For all common rules of the medical art have been ascertained and established by a series of observations of such vast extent as to compensate, in a great degree, for the absence of the other conditions of mathematical induction. The benefits of opium in pain; of mercury in secondary syphilis; of quinine in intermittent fever, or of arsenic in the papular or squamous affections of the skin, have had the nearly unanimous testimony of all observers in their favor, for successive ages.

And the same thing is true of most of the generally admitted rules of practice. They rest upon the concurrent testimony of immense numbers of witnesses, and of an almost indefinite number of observations. Here, then, we have an instance of the value of simple experience. But it must be the experience of multitudes of observers, and of long series of years. Both here, and in the result of the calculation of probabilities, the uncertainty is rendered so unimportant as to be practically disregarded. The corrective influence of multiplied observation is, in these instances, analogous to that geometrical problem by which we can indefinitely approximate the sides of a polygon, inscribed within a circle, to the circumference of the circle, until it shall be impossible to distinguish the one from the other; and the polygon has, to all intents and purposes, become a circle. Yet here, after all, we fail of the certainty of demonstration, and the result is, at best, *approximate*.

So the most careful methods which we may apply to the solution of medical problems are not only often utterly fallacious, but when most perfect, like this weaker part of geometry, are still inexact.

The inherent contradictions of medical science have been enhanced by the most opposite theories in all ages.

All the theorists say to the practitioner at the bed-side, "Do not try, but think; reason, argue, deduce!" Empirical Hunter said, "Do not think, but try!" So the modern disciples of the numerical method would say to us, "Neither think, nor try; but *calculate*!"

Meanwhile the patient dies. The average mortality, not only of the whole race, but of many acute diseases, remains unchanged century after century. Truly, when we consider the fallacies of

medical science, its confusion, its contradictions, and its impracticable theories, as well as the weakness of the medical art, and the little which it really can do; and when we contrast, with these humiliating considerations, its high aims, and exalted calling among the other branches of human knowledge, we may well say, as has been said, with epigrammatic brevity, "*La médecine est la plus noble des professions, and le plus triste des métiers.*"

Yet the truly physiological and scientific practitioner, trained to the finest edge of acumen, and, above all, taught to observe everything, is the man for the times. For the study and analysis of phenomena, and their relationships, and not the discovery of any general law like gravitation, marks those who are the Newtons of medicine. So did Hippocrates, Sydenham, and Hunter, Laennec, Andral, and Louis. And so should we all. The science of medicine wants facts; comparable, numerous, well observed, carefully arranged, minutely classified, and acutely analyzed. But little reward awaits those who collect them. He who devotes himself to the science of medicine must expect little sympathy from the mere votary of the art.

His reward lies in posterity, and the test of his conclusions must be in the future. No other agent but the lapse of time, can rightly estimate the varied elements which constitute the science and the art of medicine. This alone can finally arbitrate between the claims of statistics, and of the other methods of observation. So says Bacon:

"RECTE VERITAS TEMPORIS FILIA DICITUR, NON AUCTORITATIS."

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

DEC. 10th.—*Dislocation of the Hip: Manual Reduction.* DR. FIFIELD reported the following case:—

William Condrick, aged 10 years, while coasting, on the evening of Dec. 9th, 1860, was attacked by two boys, who pulled him from his sled, and jumped upon him, whilst his right leg was widely separated from the left. I saw him a half hour after the accident, lying in bed upon his back. The limb was greatly inverted, the great toe resting on the top of the ball of the left great toe, the right knee strongly in apposition with the left, from which it could not be much abducted. Measurement from the anterior superior spinous process of the ilium to the tip of the external malleolus gave half an inch shortening. The head of the femur could be indistinctly felt in the region of the ischiatic notch. Supporting the patient in an erect posture, the injured limb was seen to be widely separated from the other, not inverted in any marked degree, the foot pointing straight downward, resting on the toes; but the heel did not quite reach the floor. Satisfied that I had a case of dislocation into the sciatic notch to deal

with, I caused two firm mattresses to be put on a stout bedstead, and the boy placed upon them. I then sent for the assistance of my friend, Dr. Gilbert, of East Weymouth, who arrived at 8 o'clock, two hours having elapsed since the accident. Although I had previously determined to attempt reduction by manipulation, I arranged the compound pullies in case of failure. Dr. Gilbert was requested to administer a sufficient dose of ether to produce complete relaxation. The patient having been pronounced ready, I stepped quickly to the bedside, and taking the knee and ankle in my hands, I flexed the thigh on the pelvis, so as almost to touch the body, bent it over towards the left ilium, rotated it outwards, gave a slight lift with the hand at the knee, when, with an audible shock, the head of the bone left the notch, and came upon the dorsum of the ilium. I then depressed the whole limb, and with another audible shock it entered the socket. Measurements were now taken, and found to agree on both sides. The knees and ankles were secured together, and the patient left in bed for a week, the action of the bowels being checked for that length of time by opiates. He was then allowed to sit in a chair, with a stool of proper height beneath his feet. At the end of a fortnight he walked with assistance. He is now rather lame, but walks tolerably well without cane or crutch.

Three points in this case are worthy of notice:—1st. The position of the limb when the boy was held erect. The plate of dislocation into the sciatic notch, given in Sir A. Cooper's work on Dislocation and Fractures, represents a man standing erect, leaning on a support with his right hand. The right knee is in *apposition* with the left, the great toe rests on the ball of the opposite. In the present case the injured limb was widely *separated* from the other, when the boy was held erect. The great toe, instead of pointing across the ball of the opposite one, was directed downwards, and the foot rested on the toes. The only resemblance left to the plate, was, that the heel did not touch the floor. Why was this the only point of likeness left? Because it was the only thing left unaltered in its relation to the body by the altered position. Shortening (if I may be allowed the expression) *is* shortening, *must be* shortening, in any position of the body. Why was every other point of resemblance to the plate gone? Because the artist, having portrayed the position assumed by the limb when the subject was supine, imagined it must be the same when erect, which it is not. Whoever will attempt to support himself on one leg, will find that he leans toward that side, and that the opposite leg is thrust outward; that is, the pelvis has moved on the immoveable head of the firmly planted limb. Thus, in this case, when the patient stood erect, it was not that the relation of the injured limb to the pelvis was altered, but that the relation of the pelvis to the sound limb was changed.

Secondly. Another point of interest is the small amount of force required to effect reduction. I do not think more strength was exerted than would have sufficed to lift six or eight pounds from the ground.

Thirdly. I have said that the final reduction from the dorsum of the ilium to the socket, was effected by depressing the limb. From subsequent experiments with the skeleton, I think it would have been more philosophical to have everted the limb still more strongly, as in that position the head of the femur more nearly approaches the socket

than in any other. Effected in the former way, a slight pull would seem necessary.

Dr. H. J. BIGELOW said that it was convenient to remember, during the various complicated movements of the leg, in attempts at reduction, that the head of the femur always points in the same direction as the internal condyle.

In regard to Dr. Fifield's interesting case of luxation of the hip, Dr. B. directed attention to the importance, after flexing the thigh, so as to carry the head after the femur behind the socket, of either twitching or slowly lifting the femur strongly upward, during abduction, so as to jerk or lift it over the edge of the acetabulum into its place. This lifting effort must be proportioned to the weight of the limb, and is more important than abduction. The thigh being raised to a perpendicular, as the patient lies, and the knee bent at right angles, the leg becomes a powerful lever by which to rotate the thigh so as to point the head of the bone either above, below, or directly at, the acetabulum; its actual direction being easily recognized by observing that of the internal condyle to which it corresponds.

Other Dislocations.—Dr. H. J. Bigelow said that reduction is sometimes impeded by the state of the capsule, which may be slit on one side, so as to allow displacement of the articulation, while the remaining fibres hinder reduction. This is especially illustrated on the smaller joints, for example, the phalanges. In such cases it is not muscular action alone that prevents extension; and the surgeon is surprised to find, after complete etherization, that the joint is still unyielding and irreducible, except by strong and protracted effort and manipulation. Dr. B. had repeatedly seen this occurrence in the shoulder, an efficient mode of reducing which luxation he would mention as new. The patient sitting on the floor, and the arm being raised above the head, the surgeon, standing in a chair, draws the arm vertically upward, at the same time depressing the clavicle and scapula with his uncovered foot upon the patient's neck;—or, still better, the patient lies, while the surgeon sits upon the floor, both occupying the relative positions already described. If the luxation does not yield, let the patient, still lying on his back, and the operator remaining stationary, be slid round upon the floor by an assistant, through a quarter circle, so that the extension, at first upward in the axis of the body, can be maintained until the arm is at right angles with it. This is best done with a rug on a smooth floor. If, now, the right clavicle and scapula of the patient have been depressed by the surgeon's left foot (or, *vice versa*, for the other side), the patient's arm extended at right angles with the body, lies at this moment between the knees of the operator; whose left foot on the neck and shoulder can be replaced by his right foot in the axilla, while the rotation of the patient on the floor is continued by the assistant, so as finally to bring the patient's arm to his side, the surgeon's foot being in the axilla, and the extension downwards. In this way, extension is maintained most advantageously from first to last, the arm slowly traversing an arc of 180° . Dr. B. had succeeded in this way, in a difficult case.

DEC. 10th.—*Fracture of the Cervix Femoris.* Dr. JACKSON showed the specimen, which Dr. STORER had recently obtained from Dr. H. E. CLAP, of Wrentham, and read the following history of the case which was subsequently received:—"In August, 1841, I was called to Mrs. K., and learned from her that in January, 1840, while standing upon a

low chair, it tipped, and she came to the floor. She was at that time 80 years of age, and she never walked after the fall, except by placing a low chair before her, and pushing it along; being, for some reason, unable to make use of crutches at all. The limb was shortened three or four inches. Little or no pain was suffered for two or three years, but for the two years previous to her death there was, at times, extreme pain in the whole limb, apparently of a neuralgic character, and readily yielding to three or four grains of conium. Before I saw her, the case was treated as a dislocation upwards and backwards, but I felt confident that there was a fracture. Until her last illness she enjoyed excellent health, and died, Aug. 4th, 1845, at the age of 85 years; there being loss of speech for eight days before her death."

The neck of the bone has been entirely absorbed, as usual when the patient has lived so long after the accident as in the present case; the new articular surfaces being uneven, with some eburnation, especially upon the shaft. Upon the original articulating surface of the head are several deposits of new bone, altogether considerable in amount, and such as are often seen in chronic arthritis.

Dec. 10th. *Large Biliary Calculus, discharged from the Bowels, after Symptoms of Obstruction.* Dr. JACKSON exhibited the specimen, which was also sent by Dr. CLAP, of Wrentham, with the following account of the case:—"I was called to Mrs. F., in Sept., 1846, and found her vomiting, with severe colicky pains in the bowels, small pulse, and cold extremities. Heat and stimulants were applied externally, and as there was great constipation, I gave her calomel with opiates, but without any effect. Counter-irritation over the epigastrium was also used. Combinations of cathartics with opiates were given, with large injections, but without any relief, the vomiting and pain continuing. She had been vomiting twenty hours, when I gave her large doses of Rochelle salt, with a teaspoonful of the tincture of hyoscyamus after each. In less than two hours a change for the better took place, and in three hours the vomiting ceased. I then ordered a large injection of Castile soap and water, and in a short time there was a copious discharge, soon followed by another in which was the calculus. The patient was then 66 years of age, and she is still living and enjoying excellent health, never having had an attack like the one above described, before nor since. She is not of a bilious temperament."

The calculus is extensively broken away upon one side, but seems originally to have been of a cylindrical form, about three-fourths of an inch in diameter, and varying in length from five-eighths of an inch to one inch; and each extremity is worn down over its whole surface into a very marked facet, as if by friction against other large calculi. The structure is quite compact, the color generally dark-brownish, and the surface finely granulated.

Dec. 31st.—*Disease of the Stomach; Chronic Inflammation or Malignant Disease?* Dr. JACKSON showed the specimen, in a perfectly fresh state, which had been sent to him by Dr. George C. Lincoln, of South Malden, with a history of the case. The organ, when removed, was "small, whitish, and cartilaginous to the touch, and on attempting to separate it, a strong band of thickened omentum was found attaching it to the transverse colon." To the extent of from one to two inches from the pylorus, the parietes were quite healthy, and also, to a much smaller extent, near the cardiac orifice. The muscular coat was quite firm, red, and moderately thickened. The mucous and sub-

mucous cellular coats were so perfectly blended, that no trace of their limits could be seen ; and they were everywhere more or less thickened, and generally much so ;—one of the most striking peculiarities of this form of disease of the stomach, which Dr. J. was inclined to regard as not exceedingly rare, being the existence of numerous, and quite marked elevations upon the inner surface of the organ, of a more or less elongated, oval form, and due to the greater thickening in some parts than others of the tissues now referred to ; and these last tissues were tough, rather than dense, as in a common “ scirrhus stomach.” Upon the anterior face, and towards the cardia, there was an ulcer, about an inch in diameter, rather ragged, and penetrating nearly or quite to the muscular coat ; being recent in appearance, and quite different from the ulcers that are so common in “ scirrhus ” of the organ. Otherwise, the mucous surface was in no way remarkable, excepting a considerable quantity of transparent, and very viscid mucus. There was no trace of any further ulceration, of lymph, or of the soft fungous growths so often seen in “ scirrhus.”

Dr. J. said that he had never been able to satisfy himself in regard to cases like the above, but he was rather inclined to consider them as a modification of the form of disease that is so particularly apt to affect the pyloric portion of the stomach, and which he regarded as malignant, though not cancerous microscopically.

Dr. L. found considerable œdema of the extremities, and some slight morbid appearances in other organs than the stomach, but having no bearing on the case.

History.—The patient was a woman, 67 years old, and generally healthy. Fifteen years ago, she is said to have been dyspeptic for some months. About a year ago her sickness began, with some pain and other trouble at the epigastrium, with anorexia and lassitude. She was then rather fleshy, of a florid complexion, and quite healthy in appearance. From the above symptoms she recovered, under treatment, and considered herself as well as usual. Last April she began to complain of uneasiness, and of a deep-seated pain just below the left nipple, and extending to the sternum, felt particularly after eating, and obliging her sometimes very soon to stop. The pain was also increased by acids. From this time she steadily lost flesh. Four months before death, the pain and distress decidedly increased, with entire loss of appetite, and some fever in the afternoon. The mucous membrane of the mouth and fauces was red, with considerable expectoration of glairy mucus ; and for about ten days there was considerable diarrhœa, which was finally checked by opiate enemata, the dejections being, on one or two occasions, slightly dysenteric ; there being also considerable pain, though no tenderness, in the abdomen. At this time there was no nausea, except immediately after taking more than a certain amount of food, which last was never thrown up. During the last six weeks there were more frequent attacks of retching, and considerable quantities of tough mucus were thrown up ; on two or three occasions this last was tinged with blood, and then only the odor was quite fetid. During the last four weeks, the appetite returned, but only the smallest quantity of food could be taken at a time. The pain was controlled by morphia, no more than a grain in twenty-four hours being ever required. The bowels were readily moved by enemata, and the constipation was never severe. There was some return of diarrhœa during the last week. She sank gradu-

ally, and "the countenance never assumed the decided cachectic hue."

Dr. L. remarked upon the large amount of disease found in the stomach, upon the absence of any distinct tumor, and upon the pain, which was never sharp, but rather "a distressed ache." "The diagnosis was obscured by the general condition of the patient, and yet the symptoms indicated clearly the stomach as the seat of disease; and the conclusion was that it must be scirrhus of the cardiac portion only."

Dr. J. remarked that though, as above stated, his impressions would be in favor of malignant disease anatomically, the symptoms seem rather to point to chronic inflammation, in explanation of the nature of the disease.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 31, 1861.

THE following communication, embodying certain resolutions recently adopted by the New York Academy of Medicine, with reference to the publication of its proceedings in the daily papers, are not without interest, as showing that a decided step has been taken in advance by that influential society. The voice of such a body, expressed in so emphatic and decided a manner, will have its effect in checking a practice which is not only in direct violation of the rules adopted by the American Medical Association, but any encouragement of which, however slight, is unworthy, to say the least, of those who have been admitted to the honors of a liberal and learned profession.

MESSRS. EDITORS,—At a stated meeting of the New York Academy of Medicine, held on the 16th inst., after the inaugural address by James Anderson, M.D., and the reading of a paper by John Watson, M.D., the Academy went into executive session. The following preamble and resolutions, after a free discussion, were adopted by a very large majority :—

Whereas, Section 3d, Article 1st, of the Code of Ethics of the American Medical Association, adopted by this Academy, declares it to be derogatory to the dignity of the profession to publish cases and operations in the daily prints, or to suffer such publications to be made, and that such proceedings are the ordinary practice of empirics, and highly reprehensible in a regular physician; therefore,

Resolved, That the practice, heretofore in vogue in this Academy, of permitting reporters of secular papers to attend its meetings, take notes of its proceedings, and publish them, is a violation of such code, and is hereby prohibited in future.

Resolved, That it is equally in violation of said Code, for Fellows of this Academy to publish, or cause to be published, any transaction thereof, in any other than strictly medical journals.

Resolved, That nothing in the aforesaid resolutions shall be so construed, as to preclude this Academy, at its discretion, from publishing in the newspapers any of its discussions, or of its acts, relating to hygiene, or to public health.

When the vote was taken, there was but one dissenting voice, and this was from a Fellow who confessed that he had been in the habit of

furnishing reports of the proceedings for one of the daily papers. He contended, most strenuously, that these reports had been of immense advantage to the Academy, as thereby it had been made known throughout the length and breadth of the land. He confessed also, in reply to a question, that they had been of *advantage to himself*, as he had been in the habit of receiving *five dollars a column* for matter so furnished.

You, Messrs. Editors, will rejoice with us at this result. The effort to remedy the evil originated long since with certain Fellows of the Academy. They desire now to acknowledge the valuable aid rendered by your Journal, as well as the New Jersey Medical and Surgical Reporter, and last, though not least, our own American Medical Times. These journals have nobly and fearlessly discharged their duty. They deserve and will receive the thanks of all the friends of legitimate medicine.

CONNECTICUT.

A SENSIBLE SHOE.—We have often heard old people, who have outlived their vanity, talk about “sensible shoes,” by which phrase they intended to convey the idea of long, wide, leather receptacles, too large for the feet. This view being too repulsive to the minds of those who had more æsthetic ideas, has not been generally adopted. Unfortunately the latter have forgotten the danger of forming a shoe upon the principles which guide them in the construction of a bonnet. To vary the shape, as is constantly done, without regard to the conformation of the foot, is sure to be followed by deformity and all its attendant sufferings.

Dr. Plumer, of Portland, has designed a last upon what, the most skeptical will allow, is, at least, a correct principle. He has taken the foot itself as a model, and given it support where the latter is most needed, and avoided pressure which could only be injurious. The principal improvements are in the shape of the sole and the position of the heel, and we feel persuaded that the adoption of them would add much to the comfort of those who

“Sow in suffering what they reap in corns.”

NEW MEDICAL JOURNAL.—The establishment of a new medical periodical is by no means a rare event, and one too often marked by little that is worthy of more than a passing notice. *The Baltimore Journal of Medicine*, the first number of which has just been received, we are led to regard, from the character of those interested in its support, as well as from the fact that it is, so far as we are informed, the only medical journal in the city of Baltimore, as an important addition to this department of our medical literature. The Editor is Prof. Edward Warren, of the University of Maryland, and the editorship could not be in more competent hands. The articles in the present number are well written, and carefully selected, and give an earnest of what the friends of the Journal may expect in the future. With Dr. Warren at its head, and some of the first men in the country pledged to its support, we have little doubt of its entire success.

WE regret that we are obliged to omit, this week, the continuation of Dr. Ware's Lectures on General Therapeutics. We hope hereafter to present to our readers a portion of this valuable contribution in each week's issue.

M. THERCELIN presented a paper to the French Academy on the 12th of November last, giving his experience with Woorara in the treatment of epilepsy. He reports two cases of several years' duration which were greatly benefited by the use of this agent.—*Baltimore Journal of Medicine*.

PHOSPHORNECROSIS has become prevalent among the makers of lucifer matches in France. The Academy, at the solicitation of the Government, recommends, as a means of prevention, that matches be made of pure amorphous phosphorus.—*Ibid*.

THE SMALLPOX exists to a fearful extent on board the corvette Cumberland, of the home fleet, although she has been only a short time in service.—The eulogy of the late M. Achille Richard, of Paris, the eminent botanist and professor of the faculty, was pronounced by M. Dubois, Perpetual Secretary to the Academy, on the 15th of December.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JANUARY 26th, 1861.

DEATHS.

	Males.	Females	Total.
Deaths during the week,	32	33	65
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	40.9	33.8	74.7
Average corrected to increased population, . . . . .	..	..	83.3
Deaths of persons above 90, . . . . .	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
12	0	2	2	0	1	0	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.166	Highest point of Thermometer,	39°
Highest point of Barometer,	30.700	Lowest point of Thermometer,	10°
Lowest point of Barometer,	29.640	General direction of Wind,	N. & N.W.
Mean Temperature,	24°.8	Am't of Rain (in inches) and melted snow	3.344

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

		BAROMETER.					THERMOMETER.					SNOW.		Mean Amount of Cloud. 0 to 10.
		7 A.M.	2 P.M.	9 P.M.	Height.	Mean Point.	7 A.M.	2 P.M.	9 P.M.	Height.	Mean Point.	Time.	Mean.	
Monday,	Jan. 14,	29.34	29.37	29.37			33	36	35					
Tuesday,	" 15,	29.25	29.01	28.72			34	34	33					
Wednesday,	" 16,	24.79	29.15	29.40			30	32	24					
Thursday,	" 17,	23.52	24.25	29.42			21	27	26					
Friday,	" 18,	23.90	29.01	29.18			25	28	25			6 hours,	0.85.	6.66
Saturday,	" 19,	29.35	29.46	29.52	29.28	29.65.	13	19	12	24		12 m.		
Sunday,	" 20,	29.54	29.61	29.65			0	12	3					

COMMUNICATIONS RECEIVED.—Case of Croup—Tracheotomy and Recovery.—On Diphtheria.

BOOKS RECEIVED.—Ergot: Its Natural History and Uses as a Therapeutic Agent. By E. N. Chapman, M.D., Philadelphia.—On Diphtheria. By Edward Headlam Greenhow, M.D., F.R.C.S., &c. (From Baillière Bros., 440 Broadway, New York.)—Braithwaite's Retrospect.

DIED.—At Madison, Wis., August 28th, 1860, of consumption, Dr. Joel Rice, formerly of Bridport, Vt., aged 63 years.

DEATHS IN BOSTON for the weeking Saturday noon, January 26th, 65. Males, 32—Females, 33.—Accident, 2—apoplexy, 2—inflammation of the bowels, 2—disease of the brain, 1—inflammation of the brain, 1—bronchitis, 1—consumption, 12—debility, 1—diphtheria, 2—dropsy, 3—dropsy of the brain, 5—epilepsy, 1—erysipelas, 1—scarlet fever, 2—hamatemesis, 1—disease of the heart, 5—disease of the hip, 1—disease of the liver, 2—inflammation of the lungs, 2—marasmus, 1—old age, 2—paralysis, 1—spina bifida, 1—smallpox, 1—suicide, 1—tuberculosis, 1—unknown, 9—whooping cough, 1.

Under 5 years of age, 24—between 5 and 20 years, 7—between 20 and 40 years, 13—between 40 and 60 years, 12—above 60 years, 9. Born in the United States, 47—Ireland, 14—other places, 4.

